Stop Press!
Amiga Technologies sold!
Full details inside, page 14

The **essential** magazine for Amiga enthusiasts

AMIGA SHOPPER



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Issue **63** June 1996 **£4.25** US $8.95 ● Hfl 17.50

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Wordworth 5 TD
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Shopper**Reviews**



- LightWave 4: The popular and powerful 3D package is finally updated. Was it worth the wait?
- A2000 060 board: Now A1500 and A2000 owners can power up to an 060 processor.
- Secal: Preview of a new programming language.
- My Money 1.1: An updated finance package, but can it save your bank balance?
- SX-32: could the CD^{32} be the route to the cheapest Amiga with real expansion prospects?
- GT-5000: Epson's new scanner hits the streets.
- Vidi RT: The popular digitisers are re-released.
- CD-ROMs: Reviews of every new Amiga CD.

Shopper**Tutorials**

CanDo
The start of the tutorial series that explains how to build a Project using the CanDo program given away for free on last month's Coverdisks.

Music
Rhythm and percussion usage comes under scrutiny.

HiSoft BASIC 2
Gadtools gadgets are explained in part 3, showing you that they are not as hard to use as you think.

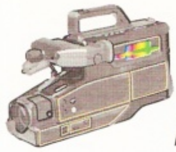
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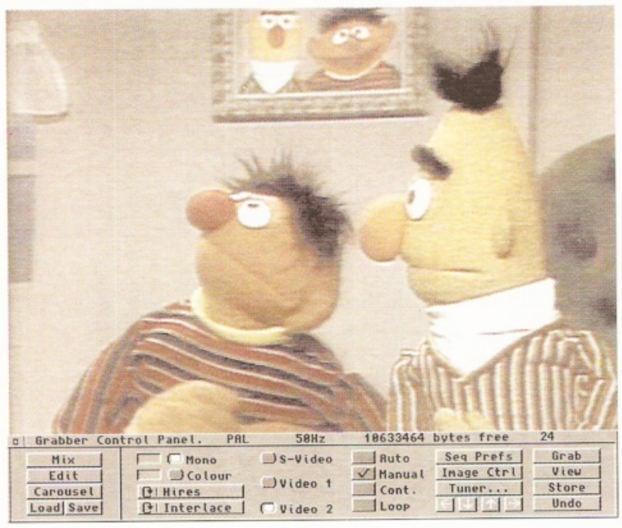
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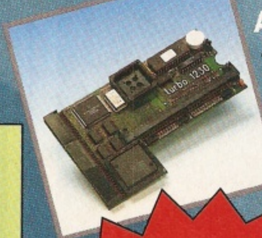


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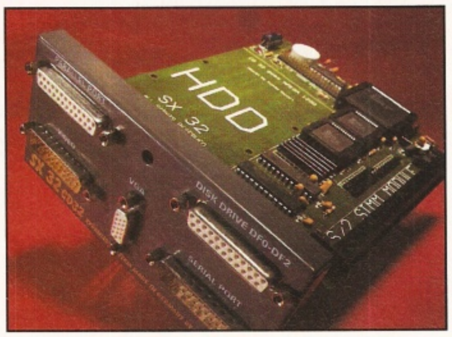
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Shopper**Reviews**

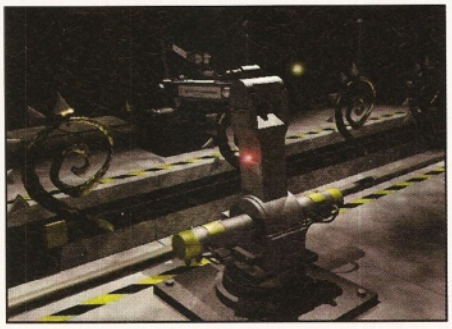
Shopper**Tutorials**

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So the new version of LightWave has now been released. Will it retain the 3D crown?



What can a scanner like the Epson GT-5000 do for you? Find out on page 40.

The **essential** magazine for Amiga enthusiasts

AMIGA SHOPPER

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Inside issue

A new owner for Amiga Technologies and a new Deputy Editor for Amiga Shopper!



Yes, it's a double whammy this month and no mistake. Firstly our beloved editor Sue Grant was poached to edit another of Future's magazines – PC Answers. She transformed the magazine and successfully relaunched it, but has now moved on to other challenges. She will be sadly missed by the AS team, whom she whipped into shape and made us produce the magazine one time every issue (no mean feat, believe us). Control of your favourite mag has now fallen to me and I'll do my best to live up to my predecessor.



Secondly, on the very day we went to press, we received information on the shock sale of Amiga Technologies to VIScorp, who you'll remember already have a licensing agreement allowing them to make use of the Amiga's technologies. When I spoke to Gilles Bourdin, he seemed very positive, pointing out that VIScorp already employ many ex-Amiga engineers and as a development company are much more geared to the Amiga's needs. You can read the details on page 14.



On top of all this excitement, you'll be happy to know that we've got another corking issue for you. The Coverdisks are bursting with goodies, including a special version of Wordworth 5 that you can make genuine use of. Inside the mag itself, we've got a brilliant feature on animation, which details all the software you can use to create both 2D and 3D animations. There are also tutorials and tips provided by the experts to help everyone create exciting animations – even if you can't draw!

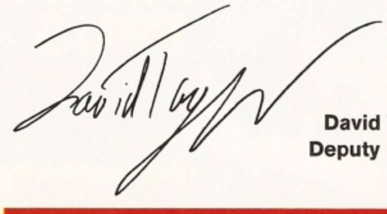
Then, there's a special feature on the Amiga and video, which caters for everyone from the home user with just an Amiga and a VCR right through to the professional.

On the reviews front, we've got some excellent products. There's the release version of Lightwave 4, a preview of a brand new programming language called Secal, an amazing 060 board for A1500 and A2000 owners, the SX-32 expansion for CD[32]s and much more.

Our Amiga Answers section has been extended to include the continuation of our How to... series and John Kennedy has got stuck in straight away dealing with Parnet and writing Installer scripts. The tutorials are changing too and you can find the new style COMMs column and CanDo tutorial that will help you use last month's amazing CanDo giveaway.

Of course, there's also the music and BASIC tutorials. The Public Domain has been given a thorough going over too, so you'll be able to find all the very best free and nearly free software for your Amiga.

There's no doubt that it's been a hectic month, but we think it's been worth it. So don't let me distract you further, read on and enjoy...



David Taylor
Deputy Editor

Turn the page for the contents of issue **63**

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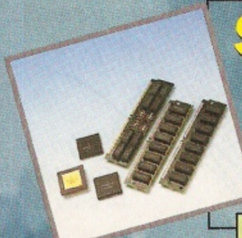
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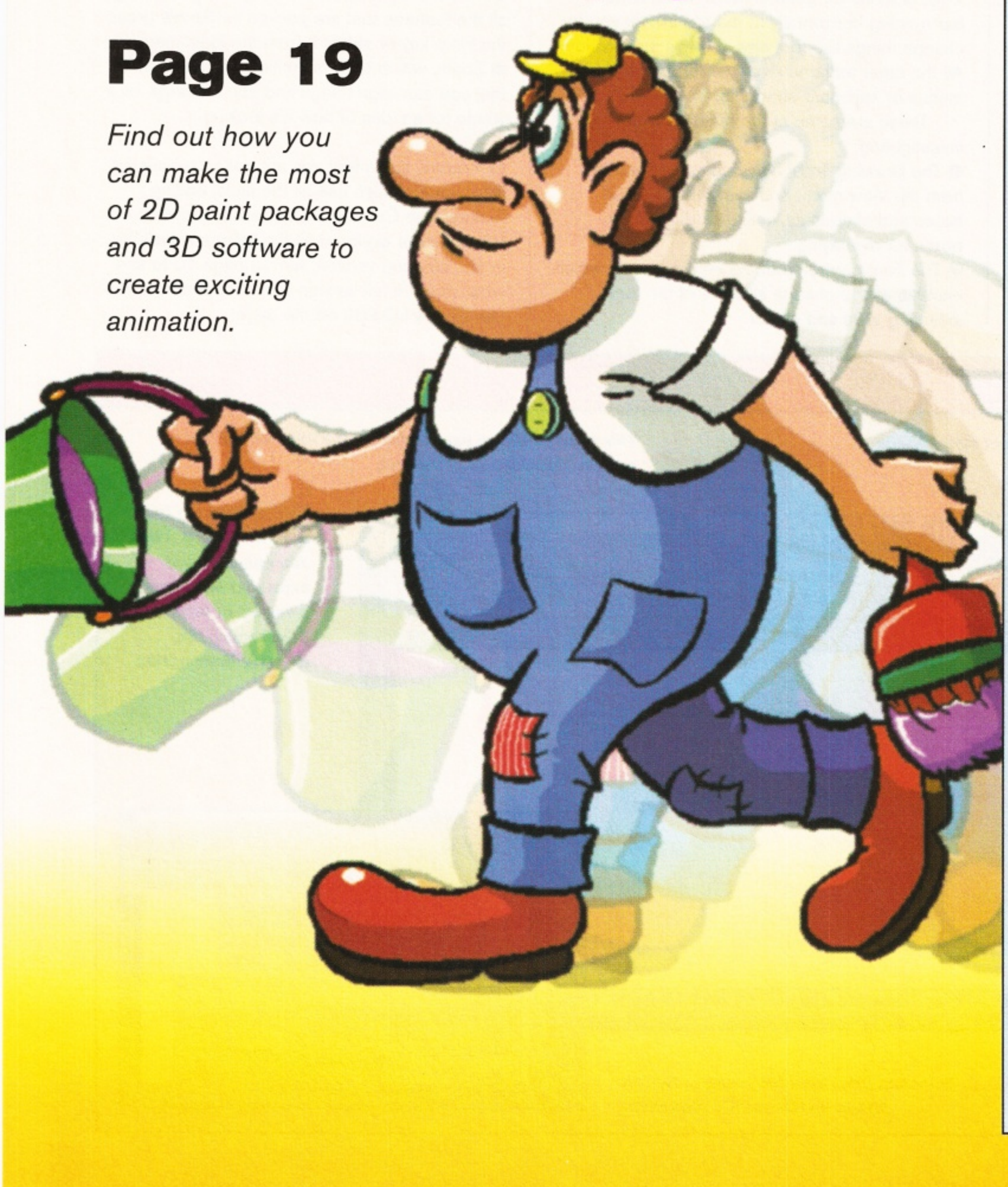
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ESCOM have agreed to sell Amiga Technologies to VIScorp. Full details on page 14.

Moving Pictures

Page 19

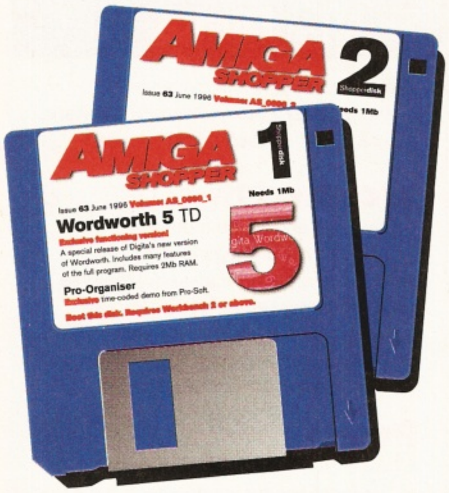
Find out how you can make the most of 2D paint packages and 3D software to create exciting animation.



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The very best of Amiga software, commercial, Licenceware and Shareware can be found on these disks:





Coverdisks Wordworth 5

The Amiga's popular document processor has now reached its fifth incarnation and Amiga Shopper has this exclusive version for you. **David Taylor** *guides you through it.*

The rather nice people at Digita have agreed to let us share some of the wonders of their new version of Wordworth with you. This specially created version allows you to try out many of the program's features and you can load and save your work. Obviously, not every feature is available, if only for the reason that the full package takes up 8Mb of disk space!

So, what can you do? Well, first things first. The program can be de-archived automatically onto either a floppy or a hard disk. You need to boot from Workbench to use it and simply double click on the icon. If you are running from floppy and have two drives, it's best to keep Workbench in one drive with Wordworth in the other while it loads. It's very easy to use, but remember, it does require 2Mb RAM to run.

Features

Once the program has loaded, you can start exploring the options. As with the other versions of Wordworth, the interface is clean and easy to navigate. The left-hand side of the screen offers a set of icons for general tasks, while a menu bar running horizontally at the top allows you to change things like font size and text justification. All the other features are used through the menus or keyboard shortcuts.

These are some of the features worth investigating:

- The Drawing Tools, which can be opened from the View menu and allow you to insert boxes and shapes as well as additional text boxes for overlaying.
- The Font control from the Format menu, which enables you to change aspects of the font including style and colour.
- The Auto-correct function, which works through a user-input selection of commonly miss-spelled words. Although there was no room for the dictionary, this feature still works and can be started from the Tools menu. Ensure you set it to correct as you type.
- The On-line help which will guide you through all the features that are packed in. Simply press the Help key or select it from the Help menu.
- Zoom, which both magnifies and reduces so that you can align things and see the page as a whole for an idea of how it's looking.

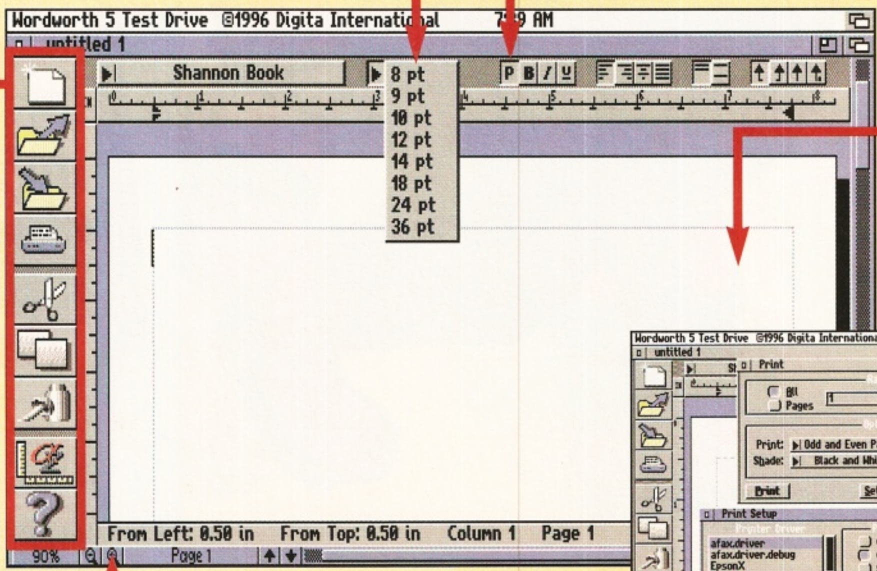
Of course, these features are not an exhaustive list – you can also use all the usual editing features like Cut and Paste, erase, and so on. When you've explored all the features available in this amazing version, turn to page 10 to see what else the full version can offer and how you can save a full £30 off the price!

Guide to Wordworth's main screen

This pop-up menu allows you to change the font size directly without going through the main menus.

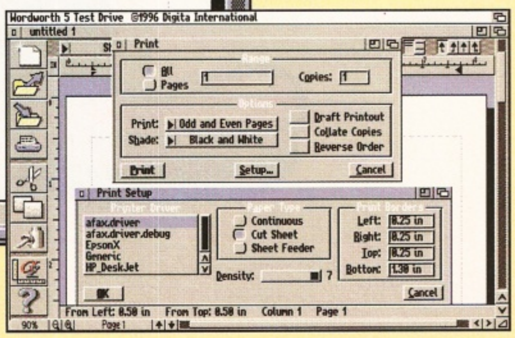
This top bar allows you to change the style of the font and the justification of the text.

This tool bar gives you instant access to some of the program's features. From the top they are: create new document, open document, save document, print, cut, copy, paste, open font requester, and finally, open the on-line help.



This is the main text area where you write. You can also add extra text boxes and a variety of other boxes using the drawing tools option.

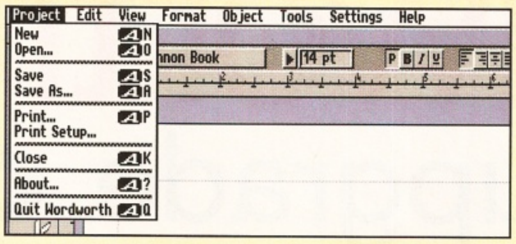
The bottom bar has movement controls including the Zoom in and Zoom out buttons.



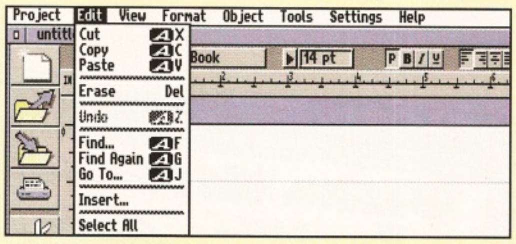
Right: ***Selecting print from the menu or button brings up this printer requester.***

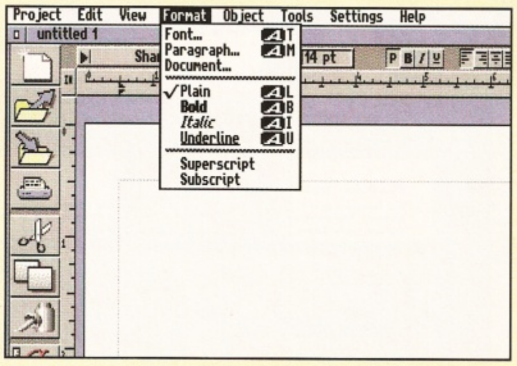
What's on the menus?

The Project menu contains all the file commands for opening and saving your documents and for printing them out.

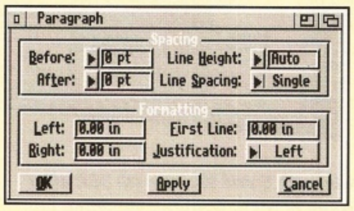


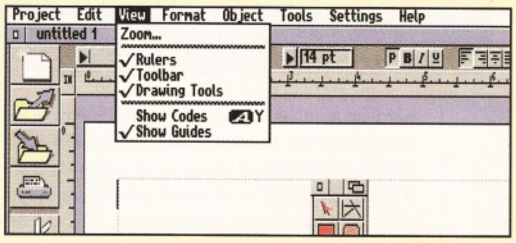
This menu contains the usual text features for cutting and pasting areas of text and for erasing sections or finding specific text.





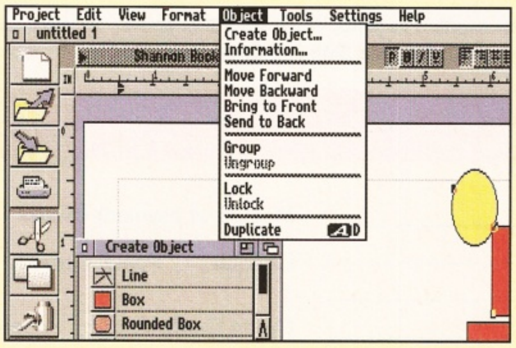
This menu allows you to change the text styles. Selecting the paragraph option will open the requester shown below.



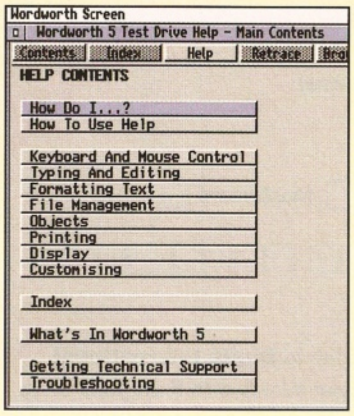


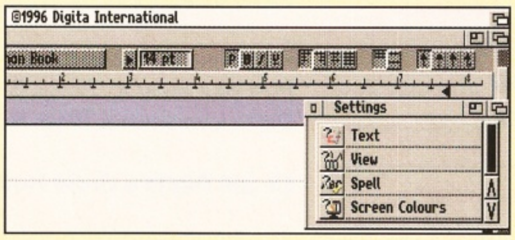
This allows you to open the other toolbars like the Drawing Tools which is shown on the screen.

***Below:** The on-line help can be opened to allow you to get detailed information on how to use Wordworth 5 TD.*



The Create Object requester opens its own box and you can also use this menu to group boxes.





The settings menu can be used to change the preferences of the program itself including things like Screen colours.

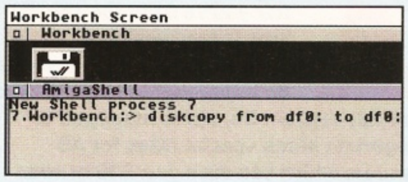
Beginners, look!



Before using either of this month's Coverdisks, please be sure to back them up – just in case. Simply follow the easy instructions below.



1 *Boot up from your Workbench disk or partition, double-click on your Shell icon – to be found in your System Drawer.*



2 *If you only have one disk drive, type in the following line and then press Return.*

`Diskcopy from DF0: to DF0:`

If you have two drives, place the Coverdisk in DF0: and a blank in DF1:, then type in this line instead:

`Diskcopy from DF0: to DF1:`

3 *Follow the on-screen prompts and remember that the Coverdisk is the source disk and the blank is the destination.*

4 *If you used the two-drive method, remember to rename the copy by clicking on its icon and pressing right-Amiga r.*

5 *If you have two drives, you can also copy the disk from Workbench by dragging the Coverdisk icon over the destination disk's.*

6 *Then place either of the Coverdisks in DF0: and reset the Amiga to boot it. It is best to boot disk 1 (or the Subs disk if you're a subscriber). This will let you install all the disks to either floppy or hard drive.*

Dodgy disk?

To avoid errors when installing to floppies, ensure that your destination disks are of high quality. If an error occurs, try re-booting and using a different spare disk – the majority of errors are caused by faulty destination disks.

If your Coverdisk absolutely refuses to work and you are certain it is faulty, please return it, along with an S.A.E., to the address below. Please do not send faulty disks to the Amiga Shopper offices.

Amiga Shopper Coverdisk
(insert the name of the disk),
TIB plc, TIB House,
11 Edward Street,
Bradford
BD4 7BH.

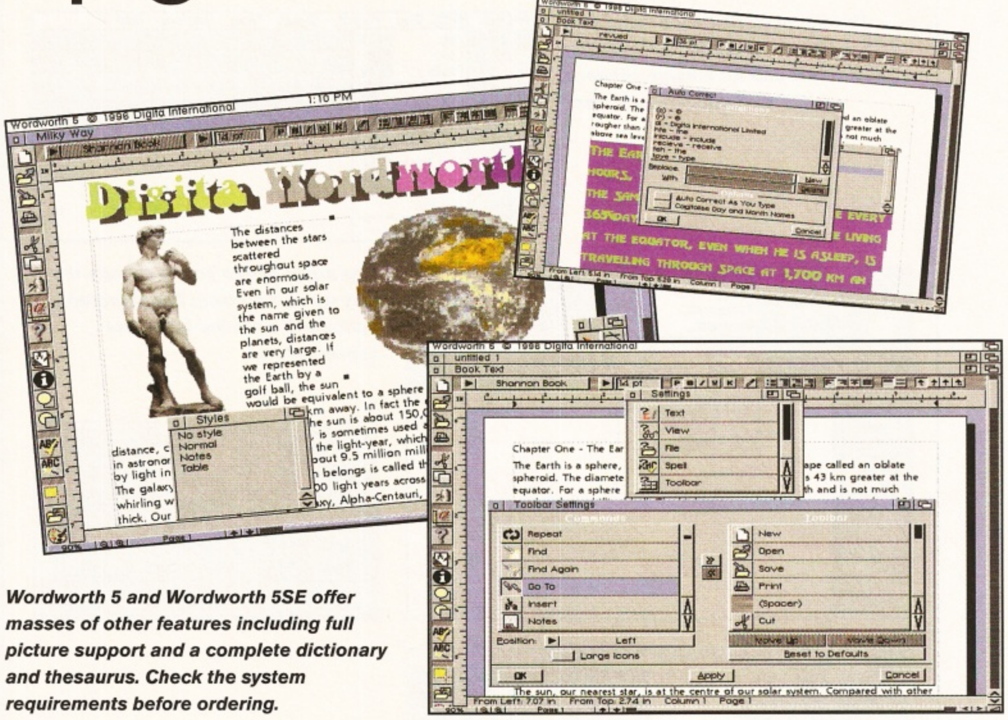
Wordworth 5 upgrade offer

So you thought that the Test Drive version was pretty good? You'll be amazed at the other functions that are available in the full version of Wordworth 5. Buy it now and save up to £35.

After you've used the special Test Driver version of Wordworth 5, we're sure you'll be interested in upgrading to the full version. So, we've managed to negotiate some special rates for AS readers which can save you £30 or even £35 if you're a subscriber!

Take a look at the wealth of additional features available:

- Background printing
- Support for Internal Printer Fonts
- PostScript printing
- Fast Format
- Text Effects
- Font Effects
- Drag and Drop Style Sheets
- Auto Bullet Points and hanging Indent tools
- Footnotes and Endnotes
- Tables
- Spell Checker and Thesaurus
- Table of Contents and Index generation
- File format support (many scalable and bitmap graphics, and many PC, Macintosh and Amiga word processor formats)
- Wizards
- Multiple columns
- ARexx support



Wordworth 5 and Wordworth 5SE offer masses of other features including full picture support and a complete dictionary and thesaurus. Check the system requirements before ordering.

- Mail Merging
- Extra font support (Adobe PostScript and Truetype)
- 50 free Compugraphic fonts
- 230-page manual written by Larry Hickmott

Wordworth 5 requires Workbench 2 or above, two disk drives and 3Mb free RAM, although a hard drive is very recommended. However, a special edition version is also available which has been optimised to work on a standard 2Mb A1200. Both these versions can be obtained for the amazing price of £39.99 plus £3.50 P&P, but AS subscribers can save a further £5 by quoting their subscription number. Simply fill out the form below.

Wordworth 5 Upgrade Offer

Save £30

Title ______ Initials __________ Surname ______________

Your address ______________________________

____

____

Post code ______________ Telephone ______________

Your signature ______________________________

Description	Price	AS Subscribers price
Wordworth 5	£39.99	£34.99
Wordworth 5SE	£39.99	£34.99
Add £3.50 P&P	Total £	

Subscribers must quote their Subscription number:

____

Method of payment (please tick one):

Cheque ☐ Postal Order ☐

Credit Card: Visa ☐ Access ☐ Mastercard ☐

Card No: ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐

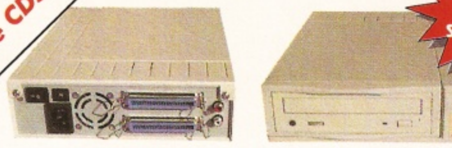
Expiry date: ☐☐☐☐

Please make your cheques payable to **Digita International.**
Post your order to: Amiga Shopper Wordworth 5 upgrade offer, Digita International, Black Horse House, Exmouth, EX8 1JL.

Or call Digita's Order Hotline on ☎ 01395 270273.

You may photocopy this form.

SuperDouble CD Pack



£189 includes Squirrel SCSI

Includes 2 free CDs

The superb SuperDouble CD-ROM is back! Using an excellent 2.4 speed drive from Sony, this CD-ROM provides outstanding performance at an amazing price. With a 360Kb/s data transfer rate and a 230ms access time, the SuperDouble CD-ROM provides all the speed for the power user.

The SuperDouble is fully compatible with the new Squirrel MPEG card, supporting the industry standard VideoCD (White Book) format.

The SuperDouble CD-ROM pack includes the award-winning AGA Experience CD-ROM - rated 93% in issue 79 of Amiga Format. This CD-ROM is crammed full of pictures, utilities, demos, animations and tools for AGA Amigas. The SuperDouble pack also includes the latest Aminet CD-ROM. This disk is brimming with the latest PD, shareware, utilities, demos and picture files from the Aminet archives on the internet.

A *full* classic Squirrel is also included in the pack. This allows easy connection of any SCSI peripheral to the A1200. The package has all the necessary drivers and software for easy connection of hard drives, CD-ROMs and removable disk drives, such as the Zip™ Drive, to your Amiga.

Squirrel MPEG



The SCSI MPEG Player for your Amiga, Atari, Macintosh & IBM-PC Compatible

Bring the cinema into your home and onto your computer with Squirrel MPEG™. Playing the popular VideoCD and CDI CD-ROMs as well as raw MPEG streams, Squirrel MPEG brings high quality digitally mastered images and 16-bit stereo sound to you and your Amiga.

Squirrel MPEG is a SCSI peripheral that can be used in conjunction with any SCSI controller, such as the Classic Squirrel™ or Surf Squirrel™, and any VideoCD compatible CD-ROM. Squirrel MPEG can also be used as a stand-alone unit, with a SCSI CD-ROM, as an addition to your TV, Video and Hi-Fi setup.

Available from March 1996, Squirrel MPEG is the latest in an established line of ground-breaking products, for you and your Amiga, from HiSoft Systems.

jaz

- 1Gb Carts
- 6MB/sec

Jaz is a revolutionary 1Gb removable hard disk system for any Amiga with SCSI. Like a Zip drive on steroids, Jaz provides astonishing performance. Offering data transfer rates of up to 6MB/s and access times of under 12ms.

For full information on this amazing SCSI peripheral contact HiSoft Systems.



£599 plus P&P

Studio V2 Professional

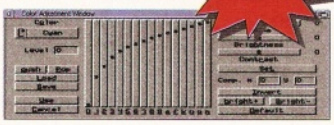
The original colour management system for your Amiga

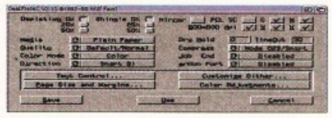
£49.95

Use Studio 2 to get the most out of your printer. With its powerful Workbench drivers, you will get outstanding printed results from your applications, every time.

Studio 2 brings professional colour management to the Amiga, ensuring that the colours on your screen match the colours on your printer.

Studio 2 is also directly supported by the popular printer manufacturers, and always includes drivers for their latest printers.





Set every conceivable print option from the Studio preference program

Cinema4D™

Professional Ray-Tracing and Animation for your Amiga

£199





Cinema4D is the easy-to-use ray-tracing and animation system for your Amiga. Equipped with an intuition-based multi-tasking editor, Cinema4D is replete with every conceivable option including window-based real-time interactive modelling, direct modelling in 3D, basic and complex primitives with infinite variations, easy object manipulation, floating toolbars, user-defined menus, object and texture lists, definable object hierarchies, optimised versions for 68020 (A1200 etc.) & FPUs, and much more!

The Cinema4D animator brings you even closer to the world of "virtual reality", breathing life into objects and scenes. Whether you have your spaceship dock with a spacestation, or take a tour around the darkest dungeon - with Cinema4D it's so simple. Just a few mouse clicks and you will have your objects move realistically through time and space.

Cinema4D also includes MagicLink, the flexible object converter. MagicLink converts all popular object formats (Imagine, Sculpt, DXF, Reflections, etc.) to Cinema4D format & back.

DiskMAGIC

Easy File & Disk Management

£39.95



Constantly doing battle with the Shell/CLI? Stop this futile struggle with DiskMAGIC, the easy-to-use file and disk management utility from HiSoft.

DiskMAGIC simplifies every task you perform, from the copying of disks and files, to the viewing of pictures and anims. In fact, after using DiskMAGIC, you'll wonder how you ever used your Amiga without it.

Order Hotline

0500 223660

To order any of the products shown on this page (or any other HiSoft title) - just call us, free of charge, on 0500 223660, armed with your credit or debit card; we will normally despatch within 4 working days (£4 P&P) or, for only £6 within the UK, by guaranteed next day delivery (for goods in stock). Alternatively, you can send us a cheque or postal orders, made out to HiSoft. All prices include VAT. Export orders: please call or fax to confirm pricing and postage costs. © 1995 HiSoft. E&OE.

VISA Access

All prices include UK VAT @ 17.5%

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Tel: +44 (0) 1525 718181
Fax: +44 (0) 1525 713716
email: hisoft@cix.compulink.co.uk



Shopper Choice

This month's disk offers yet more excellent programs and utilities for you to use with your Amiga. **David Taylor** *leads you through this glorious selection.*

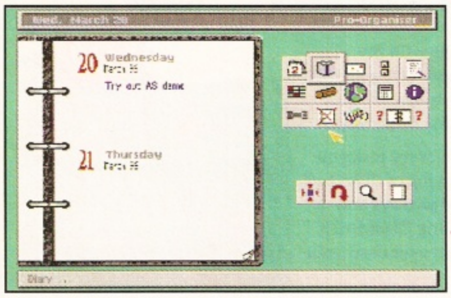
Everything you always wanted for your Amiga, but were afraid to ask for. This month's disk is loaded with Licenceware, demos, Shareware applications and programs, plus all the support material for our tutorials.

Pro-Organiser

Pro-Soft have taken a break from their usual prediction software to write an Organiser which offers some really useful features. Like their Pro-Lottery Coverdisk, this version is time-coded, which means that every function is available to you, but it will not work after 31st July 1996. But the good news is that you can then save £5 off the price and purchase the full version for only £10.

The program opens up in the expected diary format and on the right you'll find the feature icons. You can enter text into the diary function and use a planner to arrange your time. There are also many other features built-in like a dialling code or a Postcode finder which works both ways for finding the code or town. The program has a built-in help function and a quick tour of the features is also available. Any pages can be printed out if you need a hard copy. The program can be run directly from its floppy by booting it, or can be installed to a hard drive and used from there. Obviously, with programs of this nature, a built-in clock will be useful, but if not you can set the date yourself.

The program also has a set of options that you can set for things like password protection.



This exclusive version of Pro-Organiser will let you try out all its features.

Shareware notice!

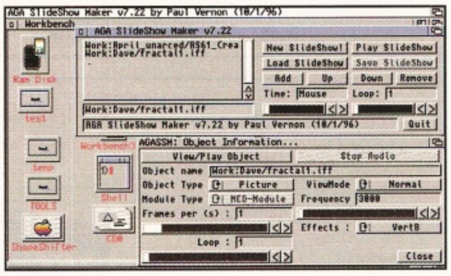
Remember that a number of the programs on our Coverdisks are some form of Shareware. Amiga Shopper has compiled both disks with the help of the authors, who have received no fee from us.

So, if you keep and use these programs, you *must* register. Some people only want a postcard, so *please* put in the effort. They did when they created the program.

LicencewareZone

AGA Slideshow Maker

Last month we reviewed this program and gave it a well deserved 95%. This demo lets you see why for yourself. Using its easy interface you can create slideshows that play animations and sets of pictures as well as incorporating a module. Each picture can be faded in using a variety of effects and the time that it is shown for can be selected. To try it out for yourself, you simply need to get some IFFs and a module and then input the sequence by choosing the pictures. The program will automatically detect the type of file: picture, anim or music and take the appropriate action. The full version of this package can be obtained for only £2.95.



AGA Slideshow Maker is very easy to use.

Pro-Organiser

Save £5!

Title _____ Initials _____ Surname ____________________

Your address ____________________

____________________ Post code ____________

Description ____________________ **Price** ____________

Pro-Organiser ____________________ £10 (P&P included)

Please make cheques payable to Pro-Soft. Please post your order to: **Amiga Shopper Special Offer**, Pro-Soft, PO Box CR53, Leeds, LS7 1XJ.

You may photocopy this form

UtilityZone

VMM 3.3

Author: Martin Apel

It doesn't matter how much RAM you've got on your Amiga, there's never enough of it. When you're dealing with multiple files or a large 3D render, all but the most powerful machines run out. But what can you do? Go and buy another SIMM or... use virtual memory. VMM requires an 030 and FPU, but allows you to do some really impressive things.

The new interface is easy to use and allows you to designate a portion of your hard drive for use as virtual memory. Now, when you would run out of memory, the programs can use this space as RAM. Hence my 6Mb A1200 shows over 50Mb of RAM! Not all programs will use virtual memory, but quite a few do. Photogenics and Lightwave should happily make use of it.

Of course, there's a price (aside from the registration fee!) and that's speed. Virtual memory is a lot slower than real RAM, but if you're going to leave your machine rendering, then it's a price worth paying. This version should work with most accelerator cards, including the new 060s, and you will also find some useful virtual memory tools in the directory.

Scout 2.6

Author: Andreas Gelhausen

An earlier version of Scout was included on our Subscribers' disk a few months ago. This program is an ideal accompaniment to SnoopDOS. Like SnoopDOS, it monitors your machine, but it has a few added features. It has



Photogenics using the virtual memory program, VMM 3.3, to display masses of pictures.

a history and can tell you the number of times that a resource or library has been accessed. It can also be used to update assigns and paths. This program uses MUI, so make sure you have that installed to use the GUI.

Application**Zone**

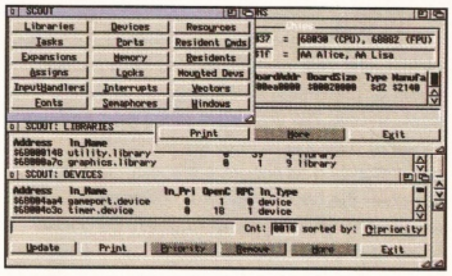
EdwordPro 5.5

Author: Martin Reddy

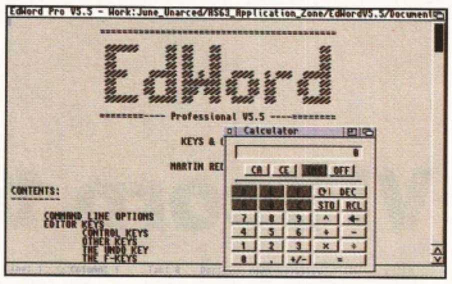
EdwordPro has been a long term favourite with Amiga users. When Larry Hickmott reviewed version 5 in AS56, he gave it 89%, saying: "Taking almost five tears to complete, Edword has progressed into a powerful but easy-to-use program. It supports all the necessary functions that would be expected of any decent text editor, including cut and paste, printing, search and replace and a special function called Auto Completion where the program can be made to expand a partly-completed word.

"The number of functions is quite staggering as is the Help file which is not only well laid out, but is also well indexed using AmigaGuide."

Among the neat tricks Edword has up its sleeve is a Calculator which can be called on the main screen or used separately. EdwordPro 5.5 is ideal for use when creating or editing



Scout monitors your Amiga and tells you how many times you've accessed a particular drawer.



EdwordPro has always been popular and this new version should prove no exception.

scripts, especially your startup-sequence. Note: although you can save your documents, the program is Shareware, so you need to register.

3D**Zone**

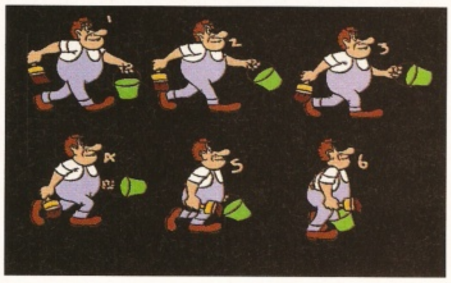
This month's Zone includes a complete object for Imagine with the necessary textures. It was supplied to us by its creator, Andy Kinsella, who made it for use on low-end systems. Also in the Zone is a collection of over 200 attributes for use in Imagine.

Creative**Zone**

In here you'll find an IFF that contains the key frames for one of the tutorial animations including in this month's feature starting on page 19. You simply need to use a paint program to pick the frames up as brushes and paste them to separate frames.

CBS

This directory contains a macro for use with Final Writer that allows you to create HTML documents for use on the World Wide Web.



The keyframes for the tutorial animation are included in the Creative Zone.

Technical**Zone**

Clipboard Enhancer

Author: Anthony Moringello

This program adds power to your Amiga by improving its uses of clipboards. Now you can cut and paste from almost any source. Its real advantage lies in the fact that it allows you to use more than one clip at once. Before when you chose a new clip, the old one would be replaced by it, but now you can make much more extended use of several clips at once.

Join

Author: Stuart Caie

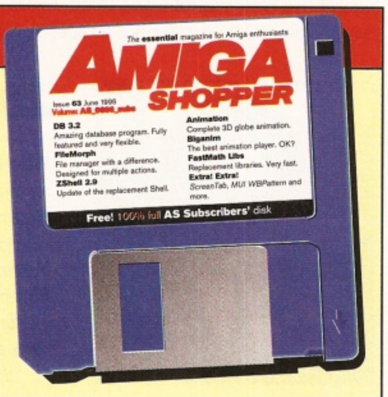
A simple command to allow you to rejoin split files using very small memory overheads.

Miscellaneous

The Programming Zone contains all the code for the HiSoft BASIC tutorial and the Information Zone has been updated as usual and contains all the information on Public Domain houses and Amiga User Groups. ■

Subscribers disk

In addition to the Coverdisks, you can also receive an exclusive subscribers' disk packed with essentials delivered to your door. All you have to do is subscribe and not only will you get the extra disk, but you'll also be able to take advantage of our exclusive Amiga Shopper Subscriber offers, like the one shown this month for upgrading from the Coverdisk to Wordworth 5. Subscribing ensures you'll never miss a copy of AS and is cheaper than buying each copy from your newsagents. As a subscriber, you're also protected against any future price rises. With all these advantages, you'd be mad not to want to. All you have to do is telephone our Subscriptions Hotline on ☎ 01225 822511 and they'll take your details and sort everything out for you. Neat, eh?



Disk contributions

This month's disks were compiled using files from Aminet and from Walton's Mountain BBS (☎ 0181 891 5730), and with the help of the authors of the programs.

If you would like to contribute to a future disk, whether you have a full application, utility, 40K demo, clipart, font, 3D object, or even a module, send it to:

David Taylor,
Amiga Shopper Coverdisk Contributions,
30 Monmouth Street, Bath, Avon BA1 2BW.

Please only send the minimum distribution archive. Also, please do not powerpack (or similar) any files because it detracts from the archiving.

News

AT sold to VIScorp, Amiga emulator for the PC, new Photogenics ready, PageStream upgrade, UK first for Amiga on the Internet, and much more...

Stop Press

VIScorp to buy Amiga Technologies

Amiga Technologies' board of directors have signed a binding letter to sell the company to VIScorp, a developer of interactive TV set-top boxes.

Just one year after Amiga Technologies and its parent company ESCOM, bought out Commodore, the company is handing over the Amiga to the American firm for what is expected to be around the US$40million mark.

The exact terms of the deal with Chicago-based VIScorp (Visual Information Services Corporation) have not been revealed and, as is usual in these matters, the two companies will wait for audits and accounts to be approved before they finally sign a contract of purchase to be approved by both their boards.

"If the acquisition is completed, we anticipate continued sales and support of popular Amiga models," says VIScorp's CEO, William Buck.

The transaction will also include the 'intellectual properties' – that is, the patented designs and copyrighted items of the former Commodore Business Machines, such as the ROMs for the Amiga platform. VIScorp already uses the Amiga Operating System and chip sets under licence in its Electronic Device – an agreement set-up only two months ago.

Buck says: "The primary objective of the acquisition is to give VIScorp full access to the Amiga/Commodore technology to support development of its ITV device. Our TV set-top interactive boxes would give home users capabilities such as telephone reception and dial-up, facsimile, pay-per-view options, electronic mail, access to on-line services, including the Internet – and more."

VIScorp
VISUAL INFORMATION SERVICE CORP

> "We anticipate **continued** sales and support of the popular Amiga models."
>
> **William Buck, CEO VIScorp**

And Buck's opinions of the Amiga rate highly: "We believe the Amiga television interface technology is clearly superior to anything that now exists for ITV boxes. Earlier this year we licensed this technology for our second-generation prototype box, and the acquisition of the Amiga will enable us to fully apply the proprietary technologies, patents and copyrights that are vital to the appearance, user appeal and functionality of our product."

The buy-out would also ensure VIScorp's access to Amiga Technologies' sales and distribution channels.

Commenting on the deal, Helmut Jost, CEO of ESCOM AG, says: "VIScorp have a clear vision of the Amiga technology potential for ITV applications. We are eager to support and work together over the term of the letter of understanding to ensure a smooth transition between the two companies. VIScorp anticipates the support of ongoing European sales of popular models such as the A4000T and the A1200 as well as current developments and future releases of Amiga Technologies."

● AS will keep you updated on any more developments in this matter as it happens.

Those April showers...

April 1994
Commodore Business Machines goes into liquidation
April 1995
Amiga Technologies and ESCOM AG buy out Commodore.
April 1996
Binding letter signed by Amiga Technologies to sell the company to VIScorp.



Jost in, Schmitt out

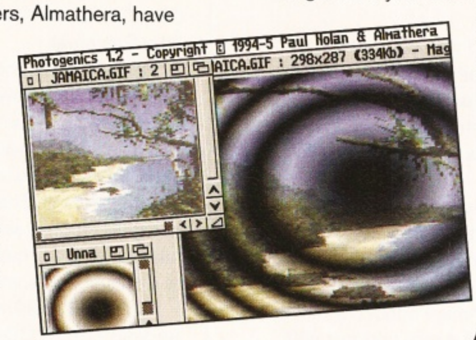
Helmut Jost has been appointed as Member of the Board of ESCOM AG, parent company to Amiga Technologies. He replaces Manfred Schmitt (who will continue to serve the company as a consultant) as the CEO.

Jost leaves his position as head of IBM's German PC business, but he is no stranger to the Amiga. He previously worked for Commodore, moving up the ranks to MD and Vice President International, and in 1993 to ESCOM's board, responsible for sales and marketing.

Photogenics' new features

A new version of the popular Amiga graphics package, Photogenics, is about to be launched.

After a long wait, Photogenics users will be pleased to know that its makers, Almathera, have spent the time making many improvements and adding useful features. So much has been added, in fact, that they have had to put it on to CD-ROM. The changes include:

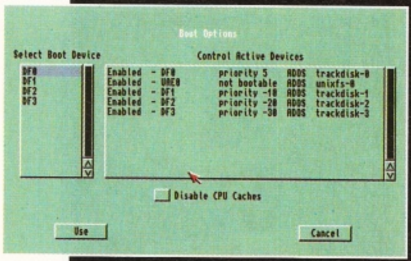


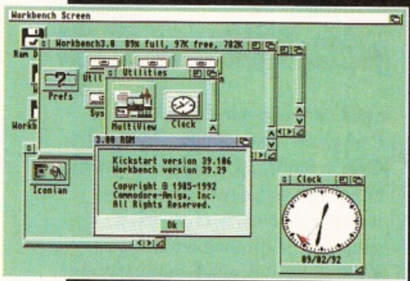
- **Powerful ARexx scripting.** You can create macro scripts to automate conversion, build animations or interface with other Amiga software.
- **Animation support.** Load and save standard IFF anim files, as used by DPaint and other animation software.
- **New Effects system.** Effects such as Radial Blur, Warp, Histogram, 3D Rotate, and a 32-bit fractal generator which you can apply to images.
- **Virtual Buffers.** Allows you to work with images larger than your memory without speed loss.
- **Hypertext On-line Help.** Tutorials to guide you through all the new features.
- **Data.** The CD-ROM contains hundreds of images, fonts, utilities and so on for you to use in your own creations.
- **More powerful and flexible user interface.** The look and feel of Photogenics has been enhanced to make it even easier to use.

All that is going to cost you £99.95 (or £59.95 upgrading from Lite version and £44.95 from Photogenics versions 1.0to 1.2a).

For more information, or if you would like a floppy disk version of the new Photogenics, contact Almathera on ☎ 0181-687 0040.

The PC that thinks it's an Amiga





It was always the one thing that we said was impossible. The Amiga can emulate nigh on every other platform, but other machines can't emulate the Amiga. The custom chips, we said, made it too difficult.

Well, we've been proved wrong, because an Amiga emulator is being developed for the PC.

Currently, the emulator is an unstable 0.5 version, but it does work and has been confirmed as capable of running Amiga software. UAE (Un*x Amiga Emulator) uses the Kickstart ROM from a real Amiga saved out as a file. It is supposed to run like an A500 or A200.

These screenshots are downloaded from a Web site that claims to use the emulator. Our very own John Kennedy confirms that it does indeed function, but took over five minutes to boot on a 486. So, realistically, running an old A500 might requires the power of a Pentium.

Current versions of UAE are available for DOS, the BeBox (this version has been ported by Christian Bauer of ShapeShifter fame), Unix variant (eg, Linux) and even a Mac version. Sound and joystick support are only available on the Linux version.

What we want to know is if it is possible to run it under the Amiga running Linux! More details are on the UAE home page: http://ww-users.informatik.rwth-aachen.de/~crux/uae.html.

PageStream 3.0i

The letters about PageStream 3 have been flowing in this month (see Amiga Answers page 46 and Talking Shop page 70). And version 3.0i is now available as a free upgrade from all the usual sources including Soft-Logik's own BBS ☎ 01908 370230.

Version 3.1 is scheduled for release later this year, but until then here's an abbreviated list of this version's new features:

- Completely implemented the Pen tool.
- Completely implemented the Reshape tool for reshaping paths.
- Completely implemented the Reshape tool for reshaping pictures.
- Implemented the ability to override a style.
- Implemented character styles.
- Implemented text style (tag) features and fixed related problems.
- Renaming a style now propagates the style to all text formatted with that style.
- When you open a PageStream 2 document, a requester now opens with five options to help you convert the text to use the new formatting commands in version 3. This requester is documented in the online help system.
- Added a PICT filter. This filter can only import bitmapped pictures from PICT files at this time, but this is the most common type.



- Added support for CyberGfx. You can now work in up to 24-bit mode on a CyberGfx compatible system.
- Added the Epson Stylus Color series to the Epson printer driver.

You'll notice that many are enhancements of features, but some new features have been added. This list of features is by no means exhaustive.

Titbits

Accessorise!

If your CDs are strewn all over your desk top, then it's time to get organised and accessorise! Golding Products produce a variety of CD storage units – a tower, a cube, a column and a carry case – all of which are capable of containing different numbers of discs.

For prices, call Golding on ☎ 01952 606667 – and remember many a famous fashion guru's advice 'you can never have too many accessories'.

Low priced RAM

In AS61 we told you where to go for cheap Fast RAM. And the good news is those low prices have got even lower.

Premier Mail Order are now offering the following: 4Mb RAM 72-pin 70 ns SIMM for £59.99, 8Mb RAM 72-pin 70 ns SIMM for £139.99, and 16Mb RAM 72-pin 70 ns SIMM for £279.99. All prices include VAT and UK postage. ☎ 01268 271172.

Printing service

One entrepreneurial Amiga user is offering the services of his brand new Canon bubble-jet printer to Amiga Shopper readers who need quality print outs.

The prices he charges will vary according to the paper used, from 90 pence to £1.10 for an A4 page, but for further details you can write to Richard Ely, 31 The Fryth, Basildon, Essex SS14 3PN.

Aladdin's new master

Adspec Programming have sold the rights of Aladdin 4D – the 3D modelling, rendering and animation package – to Nova Design.

Best known for distribution of ImageFX, Nova intend to modernise and enhance Aladdin's interface, as well as re-write its manual and add a few new surprises to breath new life into the product.

Aladdin 4D 5.0 is expected to ship in the Autumn of this year, and will be available to registered owners of Aladdin for a special upgrade price.

Contact Nova Design on ☎ 001 804 282 6528.

Titbits

Under one roof

You can't read anything computer-related nowadays without taking in the words 'expansion' and 'multimedia', and Intrinsic Computers' new system has them both. Incorporating a hard drive, a removable hard drive, quad/dual speed CD-ROM, floppy drives and



up to four EIDE devices, their multimedia IDE expansion system is housed in one tower unit, so for all of the devices you just plug in and play.

For specifications and prices ☎ 01474 445294 or e-mail barry@ics.eaglenet.co.uk

ARK upgrade

Since we reviewed Counting House in AS61, ARK have updated some of its features and removed some bugs. The manual has also been expanded and help facilities have been rewritten for better clarity. For details on how to get an updated version, call ☎ 01983 551 496.

That's the spirit

Amiga-owning musos might like to know about Spirit's Folio Notepad – not a laptop computer, but a mixer of the minutest proportions.



Despite its size, this completely portable mixer achieves DAT-quality audio, has many professional features and mic preamps that take up to 16dBu of input. For more details on this mixer and the rest of Spirit's range, ☎ 01707 665 000.

Get netted

Amiga users looking for help and support can get as much as they like from Wirenet – the UK's first Amiga-only Internet access provider.

Wirenet supply up-to-date and fully supported software and for the connection fee of £14, a suite of software is provided, which includes an integrated news and mail package, an intuition controlled ftp program for downloading software and files, as well as a World Wide Web browser.

Access is simply to use, with a custom installer configuring the various programs to your system, and Wirenet promises direct access to all key Internet services via U-Net, a top service provider.

Other benefits are listed as: Amiga specialised support by telephone or e-mail, full e-mail address with own domain name, local call access from 80 per cent of the UK, your own personal page on the WWW, a range of shell programs and scripts allowing users to work from the shell if they prefer, and an uncensored news feed.

Annual subscription is £115 – but for more details ☎ 01925 791716 or e-mail info@wirenet.u-net.com.

For those already wired up, the website is on http://www.u-net.com/~wirenet/index.html

Movie maker

FREE CDs

For those of you into celluloid as much as your Amiga, the first title in a movie maker series is now available on CD-ROM under the name of stuntman John Pasternak.

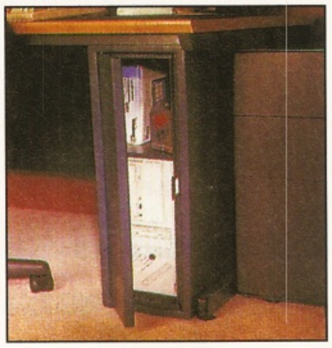
Subtitled Android Effects, the CD is fully interactive and shows a film based on a humanoid character and allows you to find out how each effect was produced – what was used, where to place the camera and how to make it yourself. The second title in the series is being worked on and is more adventure based, taking place in a cave set, with tuition on how to achieve stunts, make-up and other effects.

Worth £29.99 each, we've got five of the Android Effects CD-ROM to give away to AS readers (over 18s only please, because of the nature of the effects). Simply send a postcard with your name and address to: Movie Maker Giveaway, Amiga Shopper, Future Publishing, 30 Monmouth Street, Bath BA1 2BW.

To find out more about John Pasternak's Movie Maker series, call ☎ 01793 514188.

When the chips are down...

The theft of computer chips is nothing new, but when you look at the actual statistics, it's quite a shock. When small businesses are victims of theft, many are out of business immediately – with 47 per cent targeted again, 63 per cent with 90 days.



The popularity of this type of theft has been boosted by the incredible increases in chip prices. Following the Kobe earthquake in Japan and the development of the memory-hungry Windows 95 package, chips are in short supply and are now worth more, pound for pound, than heroin is on the black market!

To fend off theft, tagging or dyeing of chips is a popular option, but although it may help catch criminals, it doesn't stop them stealing in the first place.

Many insurance firms recommend security cables and cabinets – the more solid the better. Particularly if you've got a business to run, it's worth contacting companies like Game Over for advice. They manufacture



steel cabinets which house desktop or tower units. Game Over's Ray Carroll says: "Effective computer security lies with low-tech mechanical and physical solutions. High tech electronic devices have proved unreliable and are too easily by-passed."

For advice on how to protect your Amiga and your business, call ☎ 01628 48699.

Amiga Power

There's more to life, we think, than computer games. There's a whole great big world out there, full of mystery and wonder, and we rather thought it would be big hard and clever to poke fun at it. So the May issue of Amiga Power (on sale on Thursday 25th April) will not only contain reviews of Legends – an entertaining graphic adventure, Tracksuit Manager 2 – yet another football management sim, The Final Gate – a full-motion video CD32 sort of a thing and Charlie J Cool – a budget re-release of a so-so platformer, but also a thorough investigation of the world of the paranormal. With jokes. It'll be a right laugh. Yes.

Tim Norris, Editor

Amiga Format

We believe in freedom of choice and that is why Amiga Format is offering you, the readers, a choice next month. Choose whether to buy the Amiga Format regular – your favourite Amiga mag – or the NEW Amiga Format CD. Yes, next month there will be a CD version of Amiga Format gracing the shelves with over 600Mb of software including full commercial programs, demos, games, utilities and animations. Whichever you choose, you'll still get all the usual useful features, reviews, tips and tutorials. Obviously we will also be bringing you definitive news coverage regarding the sale of Amiga Technologies and a profile of the new owners.

Nick Veitch, Editor

DO YOU FANCY SOME, PAL, OR *WHAT?*





This issue of *Total Football* is so hard it promises to make Begbie out of *Trainspotting* look like a shandy drinking girl, and if THAT'S not enough to convince you, we'll chuck in a COMPLETELY FREE stonking FA Cup photo supplement for good measure.

It's rough and tumble all the way in the May edition of *Total Football*, as *Stuart 'Psycho' Pearce* heads a line-up of the game's toughest players in our special Hard Man Issue. Joining him are the likes of *Julian Dicks*, *Tommy Smith*, *Norman Hunter* and – yes – *Vinnie Jones* as *Total Football* celebrates everything that makes Football a MAN's game, as opposed to flouncy ponce sports like cricket and hockey. And yachting.

We'll be bringing you EXCLUSIVE interviews with *Dicks*, *Pearce*, *Hunter* and *Smith*, along with the definitive guide to the world's hardest players, history's toughest tackles, and lots of other punchy (geddit?) stuff.



TOTAL FOOTBALL

The ultimate fans' mag

TOTAL FOOTBALL'S SPECIAL HARD MAN ISSUE ON SALE THURSDAY APRIL 18.

BUY IT OR WE WILL KICK YOUR RIBS OFF.

Moving Pictures



Creating convincing moving images requires the right software and a lot of artistic input. **Dale Hemenway** *and* **Graeme Sandiford** *show you how to make the most of the best animation tool around – your Amiga.*

Animated films have come a long way since those produced by Emile Cohl Winsor McCay, J. Stuart Blackton and the like in the early 1900s. But animation in some form has been around for a very long time, far preceding the invention of the cinema.

The basic principle behind animation, and cinema itself, hasn't changed since early illusionary devices such as the Zoetrope and Phenakistiscope. All rely on the phenomenon known as 'Persistence Of Vision' which means that the human eye will merge together a series of still pictures into one moving image if they are presented rapidly enough one after the other.

It is well known that computers are now used in animation – to the extent that people often exclaim "It's all done by computers now, isn't it!?" and think that no human creative input is required. But even totally computer rendered 3D animations, such as Disney's *Toy Story* have masses of artistic input involved. Even the way an animation package is used is creative. Two people using the same package may use it in entirely different ways to achieve a similar result.

Coverdisk

The key frames to the tutorial animation on page 20 can be found in the CreativeZone of this month's Coverdisks. The entire work-in-progress animation from Active Software's Get Started CD (☎ 01325 352260), as well as other animations including the entire Charley Cat collection of anims can be found on the Cover CD of this month's Amiga Format (AF85).

2D Animations

2D animation on the Amiga has been popular since its early days. People like Eric Schwarz and Anthony Whitaker made their names with their Amiga creations like Amy Squirrel and Charley Cat. How can they create such engrossing cartoons using the Amiga? Well, there are a variety of packages that can be used to create 2D animation and they all offer different animation features. Here's a rundown of the software available.

Personal Paint 6.4

Personal Paint has been around for some time now, but it is only quite recently that any animation features have been offered.

One special feature of PPaint is its Optimize function. This deletes all but one of the same frame and keeps the timing intact, creating a much smaller file. PPaint also purports to offer superior compression of other Anim files when compared to other packages.

The Play File requester from the Animation pull-down menu enables huge animations to be played directly from a hard drive. I tested this feature and was surprised to see a 10Mb animation played amazingly smoothly from hard disk with no trouble at all on a 6Mb A1200. However, it is advisable to save animations in Anim-7 format if you intend to play them back in this way as faster loading of files is achieved and, therefore, smoother playback. With its fairly extensive image processing tools, image

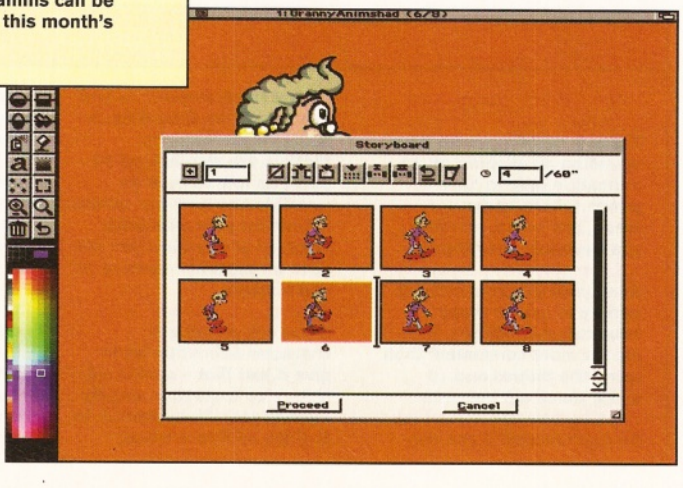
▶ 20



This picture shows old Granny as she appears loaded into Personal Paint's main work screen.



Here is Horace (Granny's other half) taking a walk across DPaint's main screen.



Right: *The Storyboard is a powerful visual animation tool. All frames of an animated sequence are displayed here in a thumbnail format and can be edited, rearranged and have their playback speed adjusted as required.*

> "Even totally computer-rendered 3D animations have masses of **artistic input** involved."

Using the Light Table to create animations

Film runs at 24 frames per second, though it is standard practice to shoot 'on twos' – that is two frames per drawing. This halves the number of drawings required. So, only 12 drawings are required per second of film. We can emulate this on the Amiga by simply playing back our animations at 12 frames per second.

If you can't draw particularly well, but are itching to try your hand at animation, don't worry – the Amiga and an art/animation package like Deluxe Paint can help you. In this tutorial, we are going to create a piece of cartoon animation without drawing a single freehand line! We're using DPaint, but if you have another program you should still be able to follow the technique.

Chances are, you will not be able to make use of a 'Light Table' facility. Your best option is to line up your artwork over the previous frame and then use keyboard short cut two to advance to the required frame before clicking the mouse button to stamp down the image. We are going to use circles and ellipses here so it isn't too difficult.

1 First create some frames to draw on – nine should be enough. On the first frame, using the unfilled Circle Tool, draw a bright circle about 5cm in diameter and roughly 5cm from the top of the screen.

2 Turn on the Light Table and go to Frame 3, making sure that you have clicked on the '2' 'N' and 'P' on the animation control panel. This will enable you to see the two previous and the two next frames beneath the drawing you are working on. So far you have only created one image (Frame 1) and this is still visible even though you are on Frame 3. Draw another circle, the same as the first, about 4cm from the bottom of the frame. I have used another colour here for clarity, but you can use the same colour throughout.

3 Now go to Frame 2 and put an 'inbetween' in, but make it slightly closer to the first circle. This is because as the 'circle' falls it would get faster as gravity took effect, but it is just starting to fall from its highest point here.

4 Go to Frame 4 and, where the falling circle on the previous frame has touched the 'ground', draw a 'squashed' circle using the Ellipse Tool. Keep the volume the same because you don't want your circle to grow and shrink during the animation. Think of it as being a solid mass.

5 Go to Frame 6 and draw an ellipse starting to return to a circular shape.

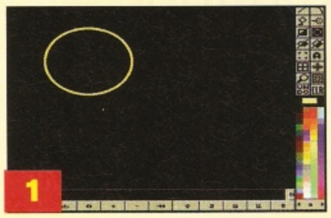
6 Right, now you can put in the inbetween for Frame 4 and 6, so go to Frame 5 and do that.

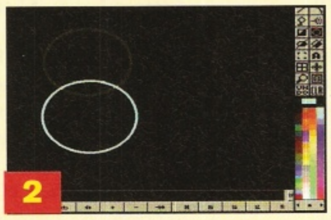
7 On Frame 9 draw a stretched ellipse almost directly over the first circle you did on Frame 1. This is your circle stretching as it leaps into the air!

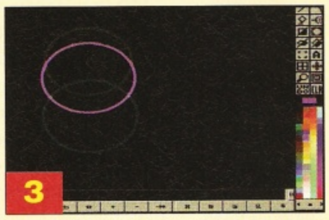
8 Go to Frame 8 and draw a squashed ellipse between Frames 6 and 9.

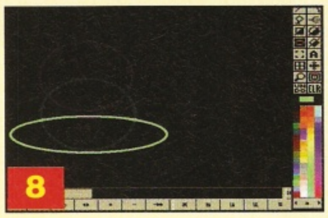
9 Only one frame to inbetween now – Frame 7. So, do a drawing in between Frame 6 and 8, but make it closer to Frame 6 so that there is a nice 'punch' to the movement as the circle leaps into the air.

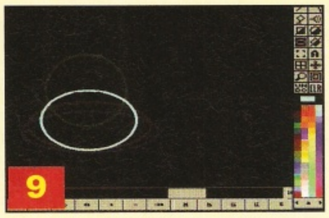
Now, turn off the Light Table and play back the resulting animation at 12 frames per second.

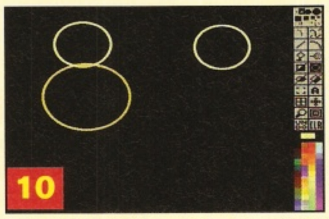


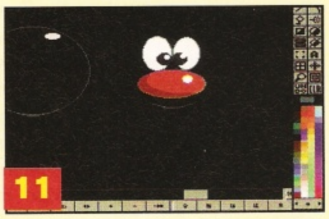












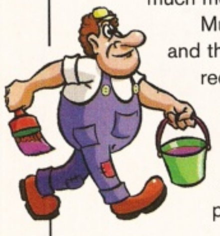
conversion facilities, animated text and anim-brush features, PPaint is an excellent animation utility more suited to processing and compiling frames into an animation rather than actually creating it in the first place.

Cloanto are backing up their claim to being 100 per cent behind the Amiga by revising PPaint for a new version which, so we are told, should be available by September this year. The animation features, and the storyboard in particular, are being greatly enhanced to offer far more multimedia options.

Deluxe Paint V

Deluxe Paint is the most well known of all Amiga paint packages as it was, until recently, bundled with almost all new Amigas.

A feature that makes DPaint more suitable than a program like PPaint for creating animations is its Light Table function (see the tutorial above). The Move requester for moving brushes around in three dimensions is incredibly powerful and versatile and can be used for much more than just spinning logos.



Multiple palette anims are possible and the camera pan and zoom requester is excellent for animation purposes. The Anim Board printing option is also handy for presenting clients with a quick storyboard. As far as most people are concerned this is *the* animation package for the Amiga and I'd tend to agree with them. It is a little slow and frustrating in some areas, but the abundance and quality of features more than make up for that.

Brilliance 2

Brilliance 2 by Digital Creations is an incredible animation package – if it had some form of Light Table facility, it would be near perfect. The package includes True Brilliance for manipulating HAM and 24-bit images and Brilliance for the remaining screen modes. Not only is Brilliance very fast, but it has pretty much all the features of DPaint. It is a great program for manipulating and compiling hand drawn images, scanned or digitised from other programs, into an animation.

After giving it all that praise, you will be disappointed to know that Brilliance is now discontinued – but it's worth a mention because you might be able to get hold of it secondhand.

Take 2

Created by animator Geert Vergauwe in 1989, Take 2 is not a paint program but an excellent animation package. Originally devised as a

Five steps to better animations

1. Save your work every 10 minutes or so.
There is nothing worse than spending all evening on an animation only to have a power failure, computer crash, and so on, and find you have lost everything.

2. Learn keyboard shortcuts.
Read your program manual and try to use as many shortcuts as possible. They are far more convenient than using the mouse and, in some cases are essential.

3. Animation needs memory.
So don't forget! If you can, buy as much memory as you can afford. An extra 4Mb, is almost a prerequisite. Matters are also helped by using as few colours as possible and Low Res screen modes for your creations. Think of all the ways you can save on precious memory as you animate.

4. Don't just move it.
If you are creating a character animation try to give it just that – some real character. Instead of merely moving your figure from A to B, think of how it would move. Would it be bouncy, jovial and happy or slow, tired and sad?

5. Squash and stretch.
Animation needs exaggeration to be convincing. If you threw a tennis ball at a wall very hard and then viewed it in slow motion the ball would appear to be almost squashed flat on impact and stretch out as it bounced away before returning to its normal shape. Squash and stretch can be applied to all moving things in animation.

Pretty good eh? It doesn't look like a cartoon character yet – there's more work to be done. A head would be a good idea.

10 Using the Circle Tool again draw a circle about the size of a two-pence piece – in the corner of Frame 1 will do (you can always erase it afterwards). Pick up the circle as a brush and get ready to stamp it down on all your characters' 'bodies'. Just before you do this, have another look at your animation. As the character hits the ground his head would carry on downwards for a frame or two and not suddenly stop dead. Stamp the heads down with this 'Follow Through' action in mind.

Now the real fun begins as our character gets a cute face.

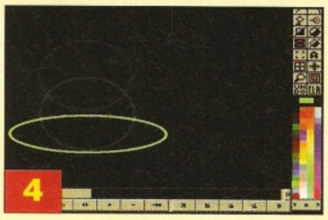
11 Again using the Ellipse Tool, draw a nose with two eyes joined to it. Add other details if you like, such as a mouth, a highlight to the top of the head or a highlight and shadow to the nose. These need only be drawn once so you can take some time over doing it. Fill in the head with a colour and pick it up as a brush. Stamp the new head over the top of all your old ones as they were only meant as a guide. The reason you needed to keep the face element separate from the head will now become apparent. A greater illusion of the head dropping as the character hits the ground will be created if we stamp the face lower on the head on these frames. Have a go.

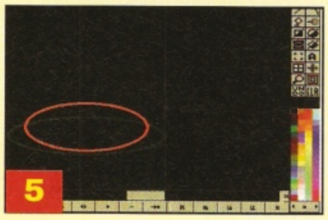
12 Once the head is completed and you are happy with the animation, you can add colour to your work. I added a highlight and shadow to the body. Also, to add the illusion of the character leaving the ground, a shadow was placed beneath him on the frames he was in the air. Hopefully, when all this is completed, you should have a set of drawings similar to these. You can now pick up Skwishy as an AnimBrush and make him jump around any background you wish.

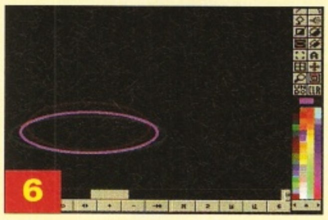
There is still just a little more we can do which will greatly enhance our animation with very little extra work.

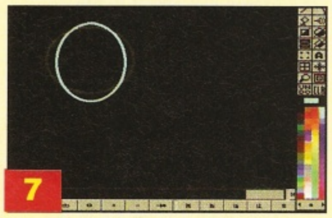
13 It is easy to make Skwishy's head revolve so that he is able to turn around and jump away from us. As the body won't change, only the head needs to be altered. Pick up the face element again and stamp it down, moving further to the right, over a series of the blank heads. Just a little touching up and you can stamp the new heads over the originals where needed, making a turning head!

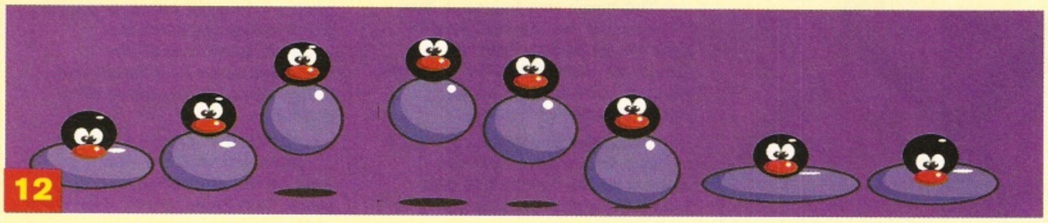
This tutorial should have demonstrated how to utilise the Light Table in a way that is close to the techniques of a professional animator. You have seen how easy it is to create cartoon characters from simple shapes and understood the principle of 'squash & stretch'. Above all, it should be fun and an inspiration to carry on experimenting.

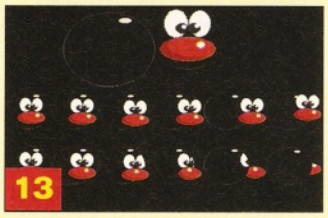












professional line tester, the program uses an Exposure Sheet to display information such as frames held in memory and any sounds that are attached to those frames. Up to four cell layers are available allowing animations to be built up level by level in the same way as a traditional cell animated film.

A Frameboard displays thumbnail versions of all frames in a similar fashion to that of PPaint's Storyboard. A control panel like that of DPaint and Brilliance is used to play and step through the animations. The package was designed to be used with Rombo's (now Quantum's) Vidi Amiga digitiser (reviewed on page 41) which allows a video camera to be connected to an Amiga and animation drawings, or models, to be grabbed into the computer.

Take 2 also offers excellent sound features. Up to four channels of sound can be attached to each frame. You simply load in your animation (from DPaint or whatever) and select a sampled sound, move a pointer to a frame and click. Easy! The resulting animations can be played independently from the program using the scene player included. Take 2 is soon to be rereleased in a new, updated form with additional features and 24-bit support, and is an excellent package for the more serious Amiga animator.

ClariSSA

ClariSSA converts standard Anim5 format anims or IFF images into its own SSA, or Super Smooth Animation format. A TV picture is made up of two interlaced fields. ClariSSA takes advantage of this by splitting each image into two half-frames and, as these play back faster than normal Amiga animations, a far smoother appearance is achieved. Animations must be in interlace format and if they're not can be easily converted within ClariSSA.

Main Actor Pro/Broadcast

Although the Broadcast version obviously has far more features than its less expensive brother, such as full support for any 24-bit graphics card, they each share some features that are of great use to animators. Both are able to play back large animations from hard drive and to assign sound samples to any frame.

Scala MM

A multimedia/titling package now installed on the hard drives of the new A1200s. I have often used Scala to add music modules to animations and even to add a voice sample in full lip-synch, though it is not as easy to achieve as with a program such as Take 2. There are also several animation utilities available in the Public Domain. Your local PD library should be able to assist you with your requirements.

Hanna-Barbera

Hanna-Barbera Animation Workshop is a basic and easy to use animation package aimed at children. It comes with plenty of example animations of Yogi Bear, The Flintstones, Scooby Doo and The Jetsons. Backgrounds are

▶ 22

Aimed primarily at children, Hanna-Barbera Workshop's tool palette is simple and easy to use...





... hand drawn animations can be transferred to your Amiga where you can then select colours for painting.

first created in the Background Paint mode, after which an animation can be drawn in the Foreground Animate section.

A Light Table (Onion Skinning) is supplied enabling the previous two frames to be painted before the finished frames and background are viewed. An exposure List shows the order the frames are stored which can be adjusted. A digitiser and video camera can be used to transfer hand drawn anims into the computer for painting. The only real drawback is that no independent animation player is included.

The right one for you

So which program is most suitable for creating animation? It depends on what kind of animation you intend to produce and how you want to go about it. If you want to draw the animation directly into the paint package, perhaps using a graphics tablet, then DPaint with its Light Table facility should be your first choice. But if you wish to process, colour and compile hand drawn images scanned or digitised using another program, then Personal Paint or Brilliance are suitable. PPaint has more format conversion and image processing options, but Brilliance has the better animation features.

For professional animators working on film and needing to checking hand drawn animation while using an exposure sheet system, or for someone wanting to add a digitised soundtrack to their work, then Take 2 is the main contender.

Useful books

Animation **and** ***How to Animate Film Cartoons*** **by Preston Blair**
Brilliant animation books that most studios keep to hand. These are Walter Foster art books and can be obtained from good art shops or from Chromacolour Supplies (☎ 0181-675 8422) for £4.80.

Disney Animation – The Illusion of Life **by Frank Thomas and Ollie Johnston**

The Animator's Workbook **by Tony White**

Animation From Script to Screen **by Shamus Culhane**

Using a pencil to draw the animation

The Amiga can assist in the production of 'classical' animation – to trace, paint and film loads of drawings would take far longer using traditional techniques. Some people find using a pencil much easier than the mouse for character animation – if you want to work this way, then you'll need a Light Box.

The Light Box works in the same way as the Light Table in DPaint in that it allows several drawings to be seen at once. A Peg Bar holds all the drawings in register. A light beneath the perspex top makes it easy to distinguish different drawings and make the changes required to achieve fluid movement.

This animation, commissioned by Chris Wiles of Active Software for the opening screen of their CD-ROM 'Get Started', was first roughed out in the form of a series of Key Drawings. These are the first and last drawings in a movement and it is important to keep the drawing rough at this stage. Most animators use a coloured pencil to rough out the keys as this assists in retaining a 'loose' quality until the preferred lines can be 'picked out' with the usual pencil. Once the keys are satisfactory, the inbetweens are drawn in the same way – keeping them fairly rough to begin with but 'cleaning them up' on a separate piece of paper, placed over the original, afterwards.

A hand scanner plugs into the Amiga's parallel port allowing drawings or photos to be scanned into the Amiga and is ideal for transferring drawings from paper to a paint program. A flatbed scanner allows much larger images to be scanned.



1 **The drawings were coloured and cleaned up in the paint program in the normal way.**

2 **The Magnify tool is great for getting in really close to small areas where the Fill tool misses the odd pixel or two.**

3 **Once the drawings were coloured I then picked them up as a brush.**

4 **The brush was halved in size – using 'h' on the keyboard in the case of Deluxe Paint & Brilliance – and the drawings were stamped down, in order, on another series of frames.**

5 **Using the Straight Line tool, a line was placed near the bottom of the frame. This was where my character was going to walk along.**

6 **Again, the character was picked up as a brush and placed on to the line, obviously starting 'off screen' as he was to walk on.**

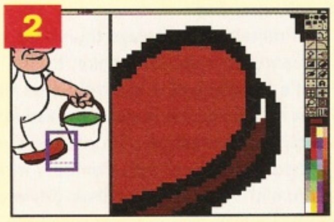
7 **The next drawing in the series was picked up and positioned over the previous one taking care to line up the foot that was in contact with the ground line.**

8 **Keeping the brush lined up I pressed '2' on the Amiga's keyboard to advance to the next frame and clicked the left mouse button to stamp the brush down on this frame in the same position. In most cases, especially when cycles are used, it is possible to pick up all the drawings as an AnimBrush and stamp them all down one after the other.**

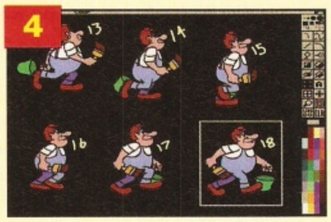
9 **Notice that all the numbers were left with the drawings until all the animation was in place. This helps you to keep track of things.**

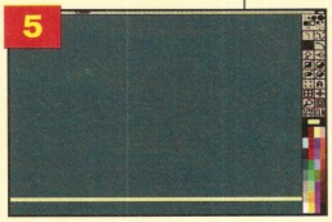
10 **It's a simple procedure to go through the frames and 'paint out' these numbers, and the ground line, using the same colour as the background.**

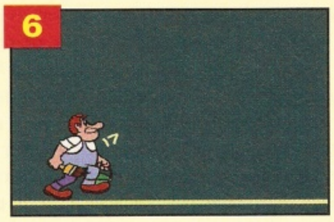






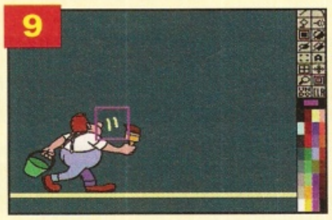














3D Animations

Creating animations in 2D is a great way to create a cartoon-style sequence, but if you want to create complicated and realistic images then you would be well-advised to consider using a 3D animation system.

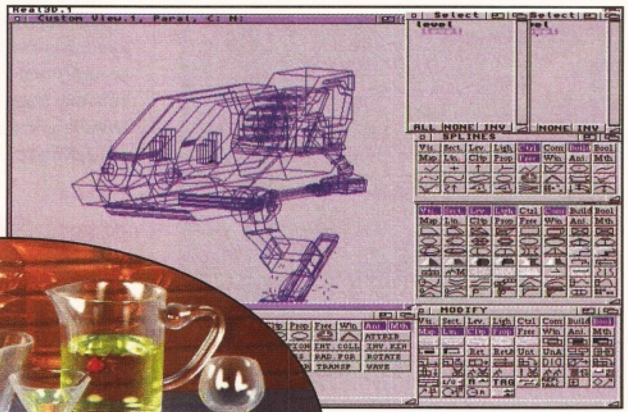
Why? Try this little experiment… hold this magazine in your left hand, then place your right hand six or so inches in front of you, move it up and down a bit, then left and right, and finally back and forward. Whoa! Did you notice the way your hand seemed to get bigger as you moved it towards your face and smaller as you moved it away? If you are going to create a convincing animation you need to fool the brain into thinking that it's seeing objects (this includes characters) moving through a three-dimensional space. To achieve this successfully with a 2D animation package you have to rotate and scale the elements of your animation and this cannot always be done without a loss in image quality.

The beauty of using a 3D animation package is that not only does it accurately perform movements in space, but most programs actually operate the same way as in the real world. When an artist creates a picture they have to take into account things such as light sources, surfaces and perspective. A good 3D program will take care of all of these factors for you and, more importantly for animations, keep these factors constant – even change them over time if that's what you want.

The result, in the hands of skilled artist, can be truly breath taking and quite photo-realistic.

How do they do that?

How do these mysterious packages work? At one time you needed an advanced degree in applied mathematics to use – or even understand – these types of program. Nowadays, although there has been an exponential increase in the power of 3D programs, things are a lot simpler and just about anybody who is willing to spend some time learning how to use these programs can produce incredible animations with them. The most common working method for 3D animation systems is a process called raytracing.





***Right:** Real 3D's interface is highly configurable enabling you to change just about any aspect of your working environment.*
***Below:** The program's handling of glass-like surfaces is excellent.*

Raytracing

Raytracing emulates the way that the human eye and cameras work. In the real world we see things through the reflection and refraction of light. Surfaces appear different because of the ways in which they reflect light. For example, a red surface absorbs green and blue elements of light, while reflecting the red elements. Raytracing follows each theoretical ray of light from its source to an object and from there back to your 'eye' in a process known as rendering. It takes account of different surface attributes and can even emulate refraction and creates a 2D image based upon what you would 'see' from your viewpoint of the scene.

Before you get to the stage of producing an image or a complete animation, you'll have create the scene or world you wish to render. This will include creating the objects, their surface attributes, light sources and a viewpoint. As you can imagine, this can be a pretty involved process if you want to get good results, which is why choosing the right program is so important. You need to find the right balance between powerful features, flexibility and ease-of-use.

The Amiga enjoys the richest diversity and greatest choice of any computing platform when it comes to 3D animation programs. The Amiga's 3D market has long been dominated by two main programs, Imagine and Real 3D, but in the last couple of years there have been two major contenders – the Toaster-less version of LightWave and a new program from Germany called Cinema 4D. All these programs have their own unique features, methods of operation and drawbacks. The following is an outline of the pros and cons of each program…

Imagine

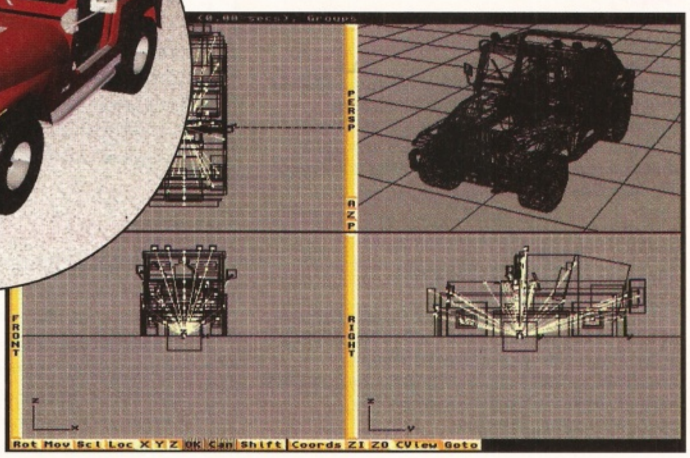
Imagine was one the first raytracing programs for the Amiga. It started out under the name Turbo Silver and is probably still the most popular. The current version is Imagine 4.0 (reviewed in AS58 92%) which sports more features but retains an almost identical interface.



Imagine uses editors, each of which performs a different function and you have take objects through each editor as necessary before getting your final output. The editors are: the Forms Editor – for building organic and symmetrical objects, the Detail Editor – for creating more detailed objects and adding attributes, the Cycle Editor – to set up repeating motions for your objects such as flapping wings or walking legs, the

▶ 24





Imagine is still a force to be reckoned with and version 4.0 has even more powerful features. However, the interface is much the same.

Jargon Buster

Spline. A line or surface described by a curve instead of straight line.
Particle systems. An animation technique that enables you to control a multitude of objects by applying forces.
Polygon. A flat surface defined by three or four points.
Bones. A tool that enables the deformation of several polygons with bone-like control objects.
Object hierarchy. A parented object for the movements and rotations of its parent object.
Key-framing. A process in which the program will calculate the necessary frames to fill-in between frames defined by the user.



This image shows what can be achieved by an experienced Real 3D-user.

Spline Editor – primarily used to convert Type 1 fonts but can also create smooth objects, the Stage Editor – where you set up your environment and load in all your objects, the Action Editor – for applying global changes and special FX such as morphing or explosions, and finally, the Project Editor – with which you can control the output of your image or animation.

That's quite a list, isn't it? Fortunately, you don't usually have to use each editor while working on most projects. It sounds like a strange way to work, and it is, but Imagine is the program that most 3D animators cut their teeth on and mostly it's not as cumbersome as it sounds. But the fact that it's always been like this is not a good enough reason for things not to have been improved over the years and the interface could do with a good working-over.

The addition of so many new features and comparatively few changes in the organisation of the program has left Imagine cluttered. Yet Imagine is very capable, and for this still demands a great deal of respect. Features such as morphing, plenty of FX modules, superb font-handling, inverse kinematics, a groovy particle system and relatively shallow learning-curve mean it can handle pretty much any kind of scene that you want to throw at.

Imagine's biggest asset is probably its Detail Editor which enables a degree of precision manipulation of points and faces that is rarely matched by other programs and has recently been fortified with ability to load in FX from the Action Editor and use them as modelling tools.

Real 3D

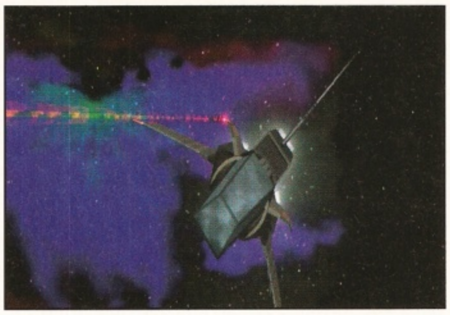
The other long-time Amiga raytracing favourite is Real 3D. Like Imagine, it has undergone quite a few changes over the years, but as well as having new features Real 3D has undergone major changes in the interface department. In recent years Real 3D has gone from an already impressive product to a phenomenally powerful animation system that can match up with just about any program on *any* platform.

Unfortunately, it did lose many of its adherents in its transformation to a mega application as both its complexity and price increased as well as its features. Version 2 of Real 3D cost around £400, had an all but impenetrable manual and a bewildering array of icons and menus. Thankfully, things improved with the arrival version 3 – it was accompanied by a decent manual so that users wouldn't have such a hard time getting into the program.

Unlike Imagine, there is only one editor and it is probably the most user-configurable interface you could imagine. You are given control over almost everything including the number of view windows, icons and their functions as well as opening new screens for rendering or editing. Real 3D is a solid modeller and takes a hierarchical approach to its objects which, although initially confusing, is incredibly powerful and useful. Textures can be added to the hierarchy just as you would objects, and can even be treated in the same way.



This is one of the demo objects supplied on the LightWave 4 CD – it's fully articulated.



LightWave is well-known for its space scenes and is ideally suited to creating them.

The program's feature list is way too big to list here, but it includes immensely powerful inverse kinematics, a superb particle system, built-in collision detection, application of real-world physics in animations, incredible handling of glass-like and reflective surfaces, the best spline tools on the Amiga, surface animations (where an object such as a walking person can be made to move over a surface) and spline mapping of textures.

The best way to explain all this power, or some of it at least, is with an example. Imagine creating a scene on a beach with a person walking along the shore (leaving foot-prints behind), waves crashing onto the shore, and that person's toe hitting a beach ball and sending it flying. To do this in Real 3D all you need to do is set up a walking motion for the figure's legs, point it in direction along the beach in Surface Animation mode, create a particle system for the waves, create a shrink-wrap animation method for the sand so that foot-prints are left automatically, and plonk the beach ball in the path of the figure and give it a light mass so that when the toe hits the ball the collision will be detected and the ball will go flying. This may still sound a little complicated, but it is much less tedious than producing a similar animation using keyframes.

Despite Real 3D's steep learning-curve, it is worth spending the time to get to grips with the program and its unique working methods. There isn't much more you could ask for; it has all the modelling tools and primitives you could need, along with a mind-blowing animation system.

LightWave 3D

To many, LightWave 3D represents the ultimate compromise between power and functionality. A testament to this is its wide-spread use in the television and movie industries – an environment where fantastic results are needed quickly. LightWave itself is split into two programs, Layout and Modeller, that can be run separately if you are short on memory.

3D must-haves

No matter how good a 3D package is there is always one feature or another lacking, and more often than not some third-party developer is happy to provide you with just what you need. There is a huge range of add-ons, accessories and plug-ins available. Here are the ones you can't do without...

Surface Pro

Price: £99.99
Supplier: Premier Vision
Contact: 0171-721 7050

This collection of professional quality surfaces is for use with LightWave. Some of the surfaces are based on procedural textures, some bitmaps and others are a combination. Between them they cover just about every surface you could imagine.

Forge and Essence I & II

Price: £79.95 each
Supplier: Emerald Creative
Contact: 0181-715 8866

Essence is an excellent collection of procedural textures for Imagine, but now thanks to Forge they can be used with any program. Forge can render textures at any size and save them in a variety of formats.

Dust

Price: £Free
Supplier: AmiNet/PD
Contact: Any PD library

A very useful general purpose particle system that can be used with either Imagine or LightWave to create effects such as waves, rain or – er – dust. It's a shareware program and can been found on the Aminet or in many PD libraries.

Impact

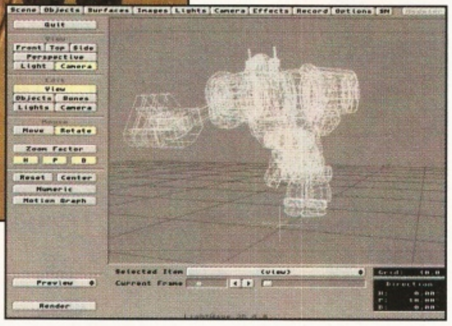
Price: £185
Supplier: Anti-gravity Products
Contact: 0181-325 8465

This is a surprisingly powerful implementation of real-world physics for creating convincing animations with LightWave. Collision detection, several types of gravity and a variety motion engines are just some of this program's many features.



Left: ***As well as creating complicated models, LightWave can create several types of environments.***

Below: ***This is LightWave's main interface – Layout. It's used for creating your animations.***



Layout is the area of the program that is used to design animations and render images. It works on simply key-frame system where you move, or otherwise modify, your objects and then create a series of key-frames. The program will then work out the necessary frames to get your objects from where they are in key-frame to next. An added bonus is the programs theatre-like system for lighting and camera work.

Modeller is often under-rated by most first time users. While it is true that there could be a few more features added, like independent axis control and a wider selection of primitives, it is more than capable of meeting the requirements of most modelling jobs. There is also a large range of add-on tools, such as PowerMacros and MacroForm that add extra functions and increased ease-of-use.

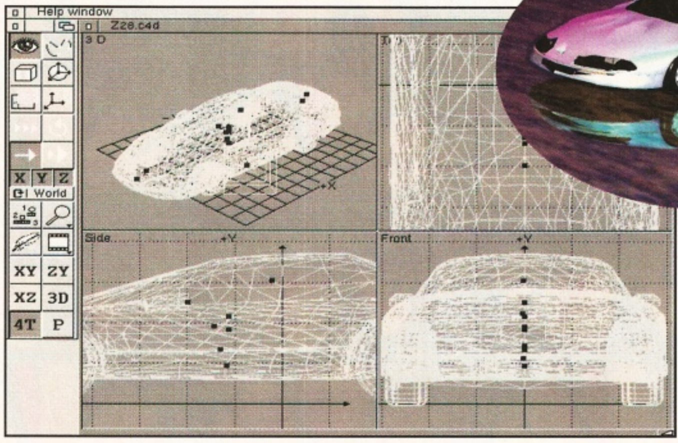
LightWave 4.0 (reviewed this issue on page 32) is latest version of the program and such is the popularity that it has been launched on several platforms including SGI. Its new plug-in expansion system means that it is much easier to expand the program's features seamlessly. With the addition of inverse kinematics and some minor enhancements, LightWave looks set to claim even more of the 3D market.

Cinema 4D

As a relative newcomer, Cinema 4D has certainly got its work cut out if it is going to make any impression on an already crowded Amiga 3D market. At £199, this German-produced product seems set for a head-on collision with Imagine and a showdown for the non-professional end of the market. Indeed, there seem to be several similarities between the two in terms of the features they have.

However, where they differ is in their working methods. Instead of opting for a multitude of editors, Cinema 4D performs all of its functions from a single screen. Users are given a choice of four different views, including an interactive perspective, or combination of them all. In keeping with the program's OS2+ look you can open it on to any screen you like, including Workbench, to either save on memory or make use of graphics.

When it comes to features it might be argued that Imagine has a slight edge. However, Cinema 4D has plenty of powerful features of its own, including several unique modelling tools, special effects and a modular expansion system. Among the special effects you'll find things such as a tool for melting objects, making them wobble, pulsate and a host of useful animation effects. The program also has one of the simplest implementations of inverse kinematics around. Its modular architecture is already being made use of with upgrades and new plug-in modules including a fractal landscape-generator, font conversion utility and fractal tree program.





Watch out for Cinema 4D, it's a great new package from Germany with tons of features and a groovy interface.

The right one for you

Well those are the main 3D programs on the Amiga and how they work, but the question remains – which is best for you? The answer relies heavily on what you plan to use the program for. If you intend to get the professional 3D market it's going to be just about impossible to ignore LightWave such is its growing popularity in the TV industry and its incredible ease of use. In an ideal world, the perfect solution would be to use both LightWave and Real 3D – LightWave for general 3D work and Real 3D for more ambitious projects. Despite a significant price hike, LightWave is still the first choice for most professional 3D animators.

If you are looking for a program at a more reasonable price for your own private use then you couldn't do much better than go for Cinema 4D. It has so many good features that have been made readily accessible that has to be the first choice for both beginners and more experienced users. ■

2D and 3D programs – where to get them

Program	Price	Supplier	Contact
Personal Paint 6.4	£49.99	Digita	01395 270273
Deluxe Paint V	£89.99	Electronic Arts	01753 549442
Take 2	£42	Quantum	01506 461917
ClariSSA	DM399 (approx £165)	ProDad	00 49 22 06 82 72 8
Main Actor Pro/Broadcast	£59.95 (Pro), £179.95 (Broadcast)	Blittersoft	01908 261 466
Scala MM	£299	Scala UK	01920 444294
Imagine 4	£99.95 (upgrade from version 3)	Emerald Creative	0181 715 8866
Real 3D	£299	Activa UK	0181-802 5770
LightWave 3D	£860	Premier Vision	0171-721 7050
Cinema 4D	£199	HiSoft	01525 718181

"If you print without it, you have only yourself to blame!"*
*Review in German "Amiga Plus" Magazine Dec 95

AMIGA SHOPPER ✓ · AMIGA-TEST very good TurboPrint Prof. 4.0 11.0 out of 12 OVERALL RATING SEPT 95 · AMIGA plus 12/95 Award '95

TURBOPRINT Professional 4.1

The probably best 24-bit printer driver system has now got even better!

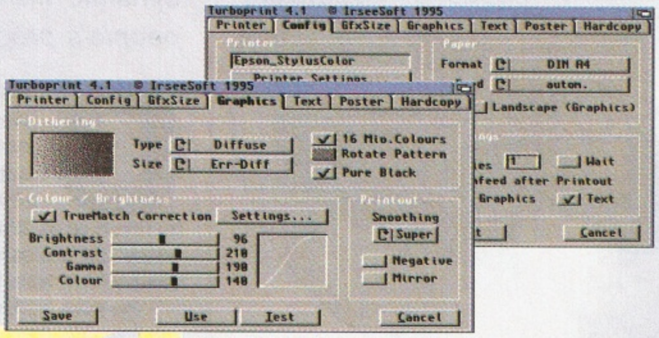
Outstanding: TurboPrint will not only output 24 bit-graphics directly from your floppy or hard drive in the highest quality possible, but will also print **from applications** like Personal Paint, Deluxe Paint or Brilliance the **full colour palette** available with AGA-graphics chipset. Although utilising the standard Workbench printer interface, printout will **not** be limited to the usual 4096 colours.

Perfect printouts from day one:

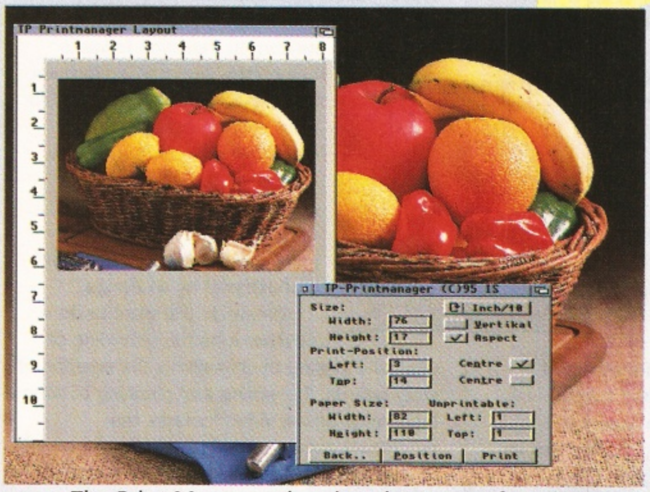
TurboPrint combines ease of use with **unparalleled output quality**. Simply choose your printer, and go: With our brand new **intelligent printer drivers** you'll get fantastic results straight away.

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The Preferences Menu with 7 "Index-Cards"



The Print Manager showing the Layout function

Improved Graphics Print Manager:

Our integrated 24-bit print and display utility has been considerably improved. New functions include support for **IFF, JPEG, PCX, GIF, BMP** and many more.

Any picture up to 16 million colours may be displayed either in true colour (with **CybergraphX** on third party graphics cards) or dithered with up to 256 (AGA) or 16 colours.

The new **Layout function** allows for precise mouse-controlled selection of printout size and position.

No need for test printouts: The Graphics Print Manager will allow the user to control the results of all changes made to the print parameters (Brightness, Gamma Correction, etc.) directly **on-screen** before printing.

Make your printing dreams come true!

Easy to use:

- ✓ Intuitive and clearly arranged preferences menu. Style guide compliant. May be **hotkey-activated** at any time.
- ✓ **Hard copy function** for fast printing of screens.
- ✓ **Poster function** for oversized printouts.
- ✓ **Compatible** to your existing Amiga software: No difference in printing, except new levels of quality.
- ✓ Will run on every Amiga model with Workbench 2.0 or higher.
- ✓ Supports even the latest **printer models**, such as Canon 610, Epson Stylus Pro/Color II/IIs, HP 660/850.

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"TP4 is the new leader in every respect. It is simply the best choice"
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Amiga Magazin 9/95

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Ask for our developer information (e-mail: IrseeSoft@t-online.de)

Video Nation

Anyone who has an Amiga and a video recorder can enter the dynamic world of desktop video. So if you fancy producing the next people's programme for TV, get clued up with **Steve McGill***...*



A basic camcorder is the first step in your desktop video set up – you've got to have some footage to work with before you edit anything!

Of all the potential fields of productivity involving the Amiga, desktop video is debatably the most rewarding and lucrative to be involved in. It's certainly the one area where the Amiga still excels despite fierce competition from the Mac and PC.

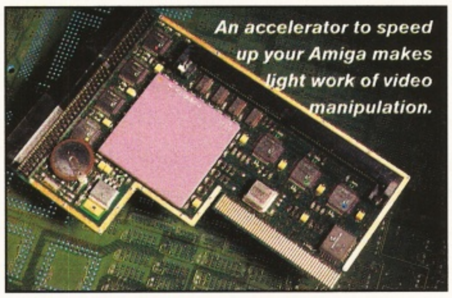
The three maxims of integration, flexibility, and cost effectiveness apply to the Amiga-based desktop video studio more than any other platform. Anyone who owns an Amiga and has access to a video recorder, be it VHS, S-VHS, Hi-8mm or 8mm, can enter the heady world of desktop video.

There are so many entry and exit points, software and hardware upgrade paths and purchasing decisions to be made, it quickly becomes imperative of the producer that they have a clear idea of the intention behind their video communication. Only then can a sensible equipment wish-list be created, aimed for, and eventually acquired.



Improve your footage with the Edit Plug.

On the way, the videographer will learn from, interact with, and be inspired by the potential of the medium. Using consumer equipment it is now possible to fulfil the picture and sound quality standards required by broadcasters such as the BBC and Independent Television. The success of 'people' centred programmes such as *Video Diaries*, *Video Nation*, and *Beadle's Hotshots* are a testament to this.



An accelerator to speed up your Amiga makes light work of video manipulation.

Despite the current transition towards completely digital video formats, the sussed videographer should have enough savvy to realise that this isn't actually going to happen overnight. Perfectly acceptable results can be obtained using a hybrid of analogue and digital equipment orchestrated by an Amiga.

Whatever you want to do – whether it be the recording of titles, the playing of animations, the creation of story boards, the writing and planning of scripts, the editing of raw video footage, the synchronisation of sound to visuals, the creation of special effects (both sound and visual), or even the control of sophisticated video equipment – the Amiga is capable of handling any task with impunity.

Choosing a video deck

New models of video recorders are being released all the time. Every editor should aim to own or hire as good a source and recording deck as possible. The source must have an edit terminal. Videographers on tight budgets can use an edit terminal equipped camcorders as their source deck. The recording deck can be any ordinary domestic video recorder which can be controlled by infra-red remote.

The recorder, more so than the source, should have as many of the following features as you can afford: edit terminal, jog shuttle dial, Hi-Fi stereo, audio dub, insert edit, timecode and Hi-Band capability.

A jog shuttle dial and time base corrector is also incredibly handy for the source deck. It makes finding and locating the exact frame required much easier.

A rough guide to desktop video users – where do you fit in?

As a rough guide pointing to the potential of an Amiga-based desktop video studio, we've compiled four categories of user. Just like the Amiga's role in a desktop environment, feel free to chop and change in your priorities. These are not hard and fast rules – there is no such thing in video.

Equipment and software required becomes more expensive as your ambitions grow. We've made the assumption that at least one monitor display is available to the DTV'er. Of the four general categories listed here, the ideal monitor for DTV is either the Philips CM8833 or the old Commodore 1084. It's also possible to get by with video work using a television only – go for one with audio visual inputs at the front and a SCART input at the back. More advanced work requires more advanced equipment. In these circumstances consider two monitors as the minimum requirement.

Beginner

Minimum equipment: **A500/600/1200, VHS video recorder, paint package, titling package, clip art.**

Upgrade path: **extra memory for your Amiga, a hard drive, an accelerator (for smoother animations), and a good quality genlock.**

Video equipment: **a camcorder, a second video deck and a video enhancer.**

This system is geared towards recording of titles, graphics and simple animations. As such it could be considered a post-production system. A500 owners will need to have access to an encoder or genlock to generate a recordable video signal.

Concentration on the use of fonts, layout of graphic design, and purpose of animation will give the creative experimenter stronger ideas on how to embellish a production.

The addition of a second VHS recorder and genlock will open up the world of sub-titles, fancy fades, digital mattes, and special effects to the beginner. Depending on which Amiga is being used, some digital mattes can be made to look as if they're part of the original video picture. The more experimentation that takes place, the better.

Jargon busters – what all those words mean

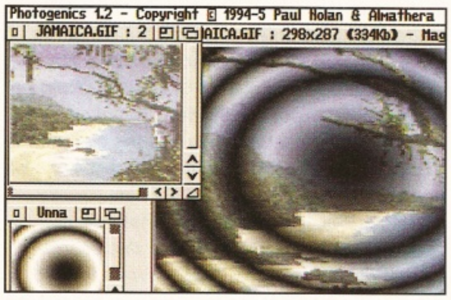
VHS: The most common video format. Other than public access TV, not of an acceptable quality for broadcast work. Will fill in for most other tasks. Typical resolution is around 240 to 260 horizontal lines (average PAL broadcast picture has 625 lines).
S-VHS: A component form of VHS. Uses higher quality tape and splits the video signal into luminance (brightness) and chrominance (colour). Capable of producing a broadcast quality picture (400 line resolution) which many TV stations accept for broadcasting.
Video 8 or 8mm: Sony's answer to VHS. Mostly used in camcorders, 8mm uses evaporated metal tape and produces superior sound and a slightly better picture than VHS. Typical picture resolution is 250 to 260 horizontal lines.
Hi-8mm: Like S-VHS, Hi-8 uses superior quality tape and splits the signal into Y/C components. Sound quality is better and picture resolution is similar to S-VHS.
Digital Video: Sony have two digital camcorders on the consumer market. Using a special tape format, the decks are characterised by almost CD quality sound and a picture resolution close to broadcast specification. Digital format represents the future of desktop video.
Composite Video: Chroma, Video, Blank, Sync (CVBS). Composite video is a composite of the four components of a video signal.
Y/C or S-Video: By separating the luminance (brightness) and chrominance (colour) of a video signal, the cross colour penalty of composite video is avoided. This results in a better quality, higher resolution video signal.
Edit Terminals: A serial interface enabling video recorders to be controlled by computer. There are two main consumer standards: Panasonic 5/11 pin and Sony's LANC. An Amiga equipped with an Edit controller can control suitable video decks and camcorders.
Jog Shuttle Dial: A jog shuttle is an accurate method of fine controlling a video deck's transport controls. It is useful for locating specific video frames.
Control Track: To keep the video picture stable and ensure that the tape transport mechanisms run at the proper speed.
Insert Edit: Disturbance of the control track in assembly editing can lead to flashes in the picture and pops in the soundtrack. Insert edit places pictures and sound onto videotape which already has an unbroken control track laid down. This ensures clean edits.
Audio Dub: Particularly handy for inserting sound into existing video footage. Mostly used for overlaying commentary, adding sound FX, and the addition of music. Normally available on decks with Hi-Fi stereo or Pulse Code Modulated sound (as found in certain 8mm decks).
Hi-Fi Stereo: In VHS and S-VHS equipment there is a mono linear track separate from the Hi-Fi tracks. The Hi-Fi signal is embedded in the video picture and cannot be changed once recorded. The mono track can be re-recorded without disturbing the picture and can enhance the Hi-Fi sound already existing.

Edits under control?

But there are traps and pitfalls awaiting the unwary. For example, the videographer who decides that they want to edit a stack of video footage must be aware of the limitations on the equipment they can buy. For Amiga controlled editing it is necessary to own an edit controller.

Edit controllers normally plug into the serial or parallel port. There are three commonly used control standards for consumer video decks: infra-red, Panasonic 5/11 pin, and Sony's LANC (Control-L). JVC use a proprietary system which is only of value when used with other compatible JVC equipment so we'll discount that for user unfriendliness.

To exploit the convenience of automated editing, the video deck which is going to be used as the source must have an edit terminal. It's preferable if the recorder also has an edit terminal, but the feature isn't absolutely necessary. If it can be controlled using an infra-red remote, then all of the current Amiga edit controllers on the market can use it. The recording deck should have as many extra features as possible. (Check out the Jargon Busters box above).



A graphics program like Photogenics enables you to add titles and artwork to film footage.

World of cut and paste

Alternatively, the route chosen could be in the field of graphics. Again, there are so many options open the mind boggles.

Take digitising for example. With a digitiser like Harwoods' Pro-Grab or one of the Vidi series, the amount that can be done is amazing. Especially in combination with a video camera.

You'll find yourself entering a world of cut and paste plagiarism. Anything you can point a camera at becomes a machine manipulatable image over which you have complete control. Montages, collages, rotoscoped animations, image processing, false dissolves and transitions. They're all at the absolute discretion – and disposal – of the user.

Grab strong images such as logos, close-ups of faces, posters, magazine adverts –

▶ 30



Not only does a genlock encode the Amiga's RGB signal into a video signal, it also enables computer graphics to be overlaid on a live video picture.

The Digital Creative
Minimum equipment: Requirements are the same as the beginner on the hardware front plus a 'real time' video digitiser. Also consider extra memory of 2Mb or more as an essential.
Upgrade Path: Accelerated Amiga, large hard drive, virtual memory software. A good quality genlock or encoder.
Video equipment: Any camcorder, any video recorder (both preferably with Long Play mode)
Recommended software: Photogenics, Deluxe Paint IV or V, Adorage, Clarissa Pro, CanDo.
Recommended Amiga hardware: VideoMaster or Vidi Amiga RT (whichever you can afforded).

The ability of the Amiga to digitise video from the real world means that the concepts and practices of the 'born again editor' can be achieved at a fraction of the price.

To gain the most benefit from this, the digital creative must at least have a memory expansion – preferably accelerated and enhanced with a hard drive. The Vidi Amiga grabbers and Video Master will capture live video and save it in various formats, eg, CDXL or Anim 5. Captured video can then be saved in chunks and flipped about in an authoring package such as CanDo or ImageVision. Although crude in looks – live frame capture with a low-end Amiga and digitiser results in greyscale images – the principal of non-linear editing can be learned. In conjunction with an image processing package and an animation package such as Adorage or Clarissa this can be a very powerful video combination. What you learn can be applied to higher end equipment if you have the budget and inclination.

The Born Again Editor
Minimum equipment: Camcorder with edit terminal, Video recorder, Amiga 500, Amiga Edit Controller.
Recommended Hardware: Any Amiga (even a 1Mb A500)
Video equipment: Hi Band camera with edit terminal and flying erase heads, video recorder with insert edit and audio dub, sound mixer, KRP's Edit Plug.

The potential editor will be able to draw from his lifetime's experience of watching television to good use with this set-up.

Every scene shot can be

From desktop production to desktop broadcasting

One of the fundamental shifts in the world of video communication will be the change in emphasis from desktop based production to desktop based broadcasting.

Use of standard video formats such as quicktime video on the Net are evidence of this phenomenon happening already. The BBC and ITN are presently undergoing a full-scale change towards all digital studio formats.

Despite resistance from newscasters – Channel 4's Jon Snow has protested that he won't use the technology – the potential for anyone with a modicum of editing know-how to produce their own programs is astounding.

Fierce competition and financial constraints among broadcasters, from standard terrestrial broadcasters to satellite broadcasters to cable based broadcasters, means that broadcasting companies will come under increasing pressure to find high quality inexpensive content to fill their time slots and news programmes. And the self-taught Amiga desktop video producer/broadcaster will find themselves in a prime position to market their wares.

One of the best working examples of an operational Amiga based broadcasting system is used by the Cleveland Constabulary in Teesside. The Cleveland Constabulary Information Network (CCIN) is based in the video unit at Cleveland Police Headquarters. From this base, video footage shot at traffic accident scenes, murder scenes, etc, is MPEG encoded and broadcast to the 30 stations throughout the region.

Without the Amiga this would not be possible. Each of the 30 stations harbours a touch screen terminal which houses the following hardware/software combination: an Amiga 4000/030 with 6Mb RAM, a Hydra network card, a 1/2 Gb hard drive, an MPEG decoder, and Scala Info-Channel software. The Amiga at the Police Headquarters is identical in spec to those of the terminals in the stations. But due to the specific nature of the Scala Info-Channel set-up, it is the only terminal which sends information. In effect, it is a master and dumb slave terminal set-up. The master decides which terminals are broadcast to and which aren't. It can monitor the frequency at which specific footage has been watched and which stations have been doing the watching.

It's plain to see that a cable broadcasting company using similar technology would use this info to build profiles of the viewing preferences of their customers and tailor their content to suit.

Also worth noting is that although satellite and cable broadcasters have settled upon the technically superior MPEG-2 format as a future broadcasting standard, MPEG-2 players will be backwardly compatible with MPEG-1. To the dedicated videographer this represents tremendous potential. Especially when cable companies with fibre optic links start joining hands.



Today, most camcorders have sophisticated features to help you shoot better quality pictures.

anything that takes your fancy – and play around with them to your heart's desire.

The other beauty of digitisers is that they can be used like digital video editors. Whole sequences of 16-shade monochrome video can be grabbed, re-ordered, played around with in an art package and re-recorded. Many of the sequences used in the PD-Demo scene use this method. Despite the low res, grainy feel, the scope for colourisation and stylisation is huge.

A side benefit of a video grabber capable of capturing live frames is the ability to grab a sequence and then look at when changes of scene were made and why. A vidi digitiser and 4Mb of RAM enables you to capture 30 seconds of video – enough time to capture a whole television advert. Considering that they use the hottest editing and visual techniques, this is a path well worth exploring. Learn from the professionals. What's more, it's virtually free.

All genned up

On a different note, for many people, the first piece of equipment they think of regarding desktop video is a genlock. Not only does a genlock encode the Amiga's RGB signal into a video signal that can be recorded to tape, it also provides the means for computer graphics to be overlaid on a live video picture. This gives more scope for many special effects.

The simplest and most used task of a genlock is in the overlaying of titles. These titles could be the credits for a production, sub-titles for the deaf, introductions for new characters on-screen such as the protocol used in a documentaries, or simply an aid to let viewers know the time and location of a shot.

With a strong grasp of typography, you'll soon realise the potential of an Amiga and genlock combination.

But that's not all a genlock can do. They can be used to emulate a film matte. Films such as *Who Framed Roger Rabbit* are prime examples of mattes in action. But a matte needn't be as complicated as the techniques used in that film. The Emerald City in *The Wizard of Oz* was a palace painted on a piece of glass placed in front of the camera. If you watch Dorothy and her motley crew, you'll notice that they don't actually pass in front of the city. That's the secret of a well executed matte.

Principally, there are two kinds of matte – still and animated. Still mattes are best for establishing shots – shots that let the viewer know where the location of the following action is about to take place. The beauty of the still matte lies in the ability to shape the computer graphic to merge with the video picture. For example, a digitised picture of a castle could be superimposed over a live video shot of an empty field. Assuming that the user has the confidence of palette control and shading, the castle can be made to look as if it's part of the film.

Hopefully, this feature has whet your appetite. One project could be a documentary on the ignorance of the public toward the Amiga. The fact that the footage was assembled using the Amiga as the heart of the production would reinforce your message tenfold. ■

A rough guide to desktop video users – where do you fit in?

logged into an Edit Decision List (EDL) which can be cut, paste and saved onto an Amiga floppy. The advantages of this are numerous – shots and scenes can be trimmed simply by changing some numbers in the EDL and whole video sequences can be re-arranged automatically because once the shots are logged on the EDL you have complete editorial freedom.

Tightly edited footage can make all the difference between impressing and boring an audience. If you can afford the equipment, you could be on the way to making money.

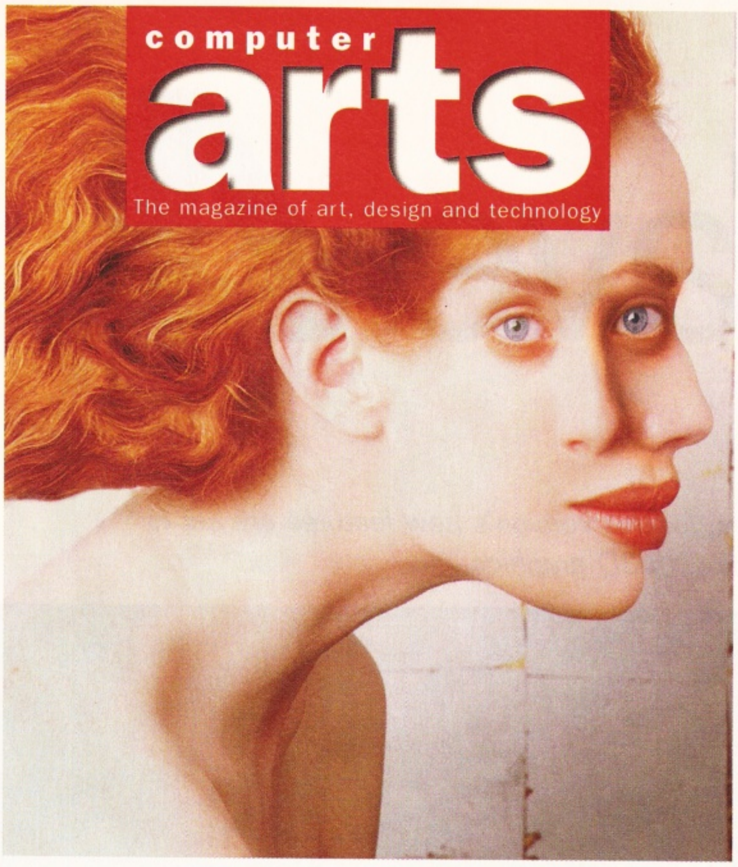
The Semi-Professional
Minimum equipment: **Hi-Band camcorder with timecode; two Hi-Band video decks – source deck should have time code ability, jog shuttle dial, and in-built time-base corrector; high quality genlock; multi-machine edit controller; video mixer; synchable tape recorder eg DAT; accelerated Amiga with hard drive.**
Recommended equipment: **Camera: Canon EX2 HI, Sony DCR-VX1000, Panasonic NV-MS4; video decks: Panasonic NV-HS1000, Panasonic AG-4700, Sony EVC-S9000; edit controller: KRP TES-30 or 40; Amiga: 1200/4000 8Mb RAM and large SCSI drive; G2 systems genlock; video mixer: Videonics MX1.**

Much of the semi-professional's equipment will depend on the markets they are working in. These could range from the domestic (wedding videos), to the educational (instructional videos), to the corporate (information/training videos).

Whichever the market, picture and sound quality is always of paramount importance. Much of the software and hardware in the previous video types can be used. But due to the need for high resolution graphics, minimum processor speed should be that of a 33Mhz 68030.

The use of a big box Amiga means that cards such as VLab Motion and the GVP TBC time base corrector can be used to clean up dubious quality pictures during the editing stage.

Assembling this type of equipment together, by definition, means that you will have to be earning money for its upkeep and maintenance – it will by no means be cheap, but it's worth it!



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LightWave 4

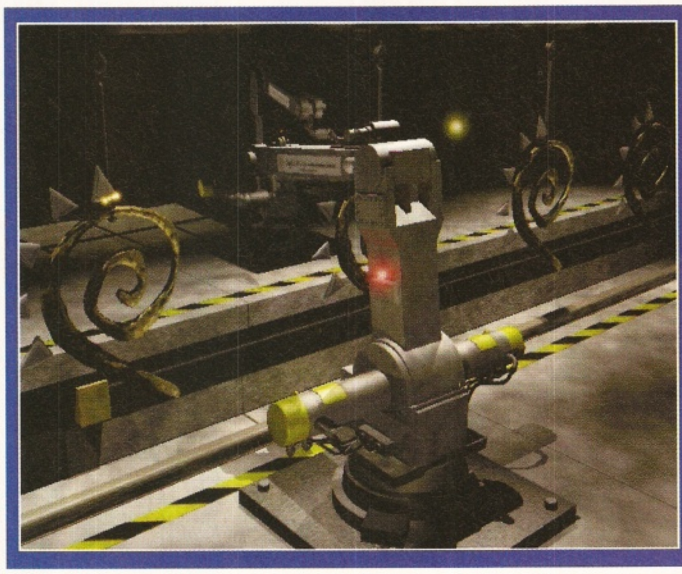
Many changes are afoot in the world of LightWave users, for this version's new features are set to knock your socks off! **Graeme Sandiford** *gets to grips with 3D graphics...*

Unless you're very new to the Amiga, don't watch TV or films, haven't seen an Amiga magazine in a long time or you've spent the last two years in a Tibetan monastery – you will no doubt have heard of LightWave. This incredible 3D graphics program has practically revolutionised the television and cinema special effects industries.

Offering un-paralleled power and ease-of-use at a surprisingly low price, LightWave has been used in many Hollywood TV productions such as *Space Above And Beyond, Robocop, The Adventures of Hercules, Babylon 5* among many others.

Until recently, this popular 3D package has been lumbered with a rather expensive dongle that was useless to most Europeans – NewTek's excellent Video Toaster system. Since its release, the standalone version of LightWave 3.5 has done wonders in increasing the program's popularity and this package, which was being used almost exclusively in the US, has now gained an incredible user base all over the world.

It's hard to explain to someone who hasn't used the program just what makes LightWave so good. Its biggest asset is that not only is it able create stunning images and sequences, it's also so simple to use. In the computer graphics world, rarely will you be able to get to grips with a program so readily. Pick up LightWave's manual, spend an afternoon tinkering with the program and you will soon find yourself creating something wonderful and unique. Even those people without a technical or 3D graphics background can get to grips with LightWave with surprising ease – thanks to the program's straightforward, theatrical-like interface and approach to rendering.



An example scene supplied with LightWave 4. It's atmospheric, but because it's got more than 44 light sources it needs loads of memory to render.



The glowing engines on this spaceship were created using the new Glow feature.

Despite LightWave's popularity and capabilities, it is generally not considered to be a complete 3D animation system and in power terms, lags behind programs like Real 3D. However, several third party developers have come to NewTek's rescue by creating a range of utility programs for LightWave. And NewTek – making the most of the opportunity – have added a new plug-in system to this new version.

Plug-in Power

LightWave 4's plug-in system is a definite improvement on LightWave's ARexx system which only enabled the execution of ARexx scripts from within the Modeller part of the program. The plug-in system will make it possible for third-party developers to add features to just about any function of the program. A good example of this is Newtek's own implementation of additional image file formats. LightWave can now load and save in a variety of formats including JPEG, Targa, BMP, PCX, TIFF, Pixar, SGI, SUN and Pict – which means you can take advantage of the compression of JPEG images and achieve a high level of compatibility with just about every other computer platform.

Another implementation of the plug-in system is the Shader plug-ins found in the surfaces panel. These can be used to change the way in which a surface of an object will appear when rendered. The Objects panel now has two plug-in gadgets, one for displacement map plug-ins and another for object replacement. Future displacement map plug-ins are likely to include tools for changing the shapes of objects in a scene or perhaps morphing them. Object replacement plug-ins will probably be used for things such as particle animation tools.

The effects panel can be used to add filter plug-ins. These kind of plug-ins will be used to add processing effects in much the same way as image processors. One of the demonstration filter plug-ins is a nightvision module that emulates a view you might see through an infra-red scope at night.

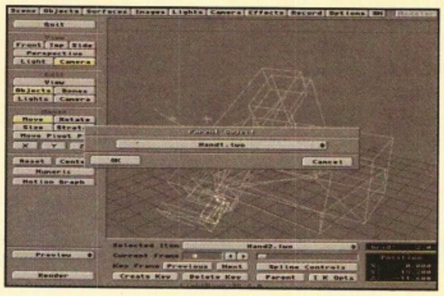
The plug-in system really is an important addition and should ensure that LightWave continues to improve. Several third-party developers are already at work creating new plug-ins and converting the old programs, so there should be plenty to choose from in the

Inverse Kinematics and LightWave

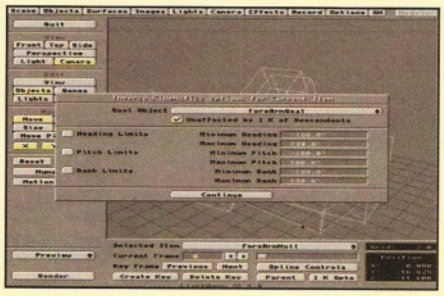
LightWave's arguably most important new feature, aside perhaps from the plug-in system, is inverse kinematics. This technique makes creating realistic motions for humans and connected machinery easy.

It works by restricting the movements and rotation of your objects and making them respond to the movements of objects they are connected to. Most programs usually have systems that are overly complicated or severly restricted in the functions. However LightWave, as it often does, has struck a fine balance between features and ease-of-use.

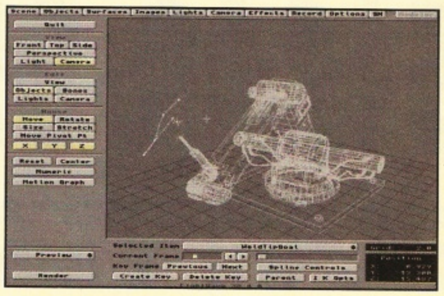
To find out more about how LightWave's implementation of inverse kinematics works have a look at this guide...



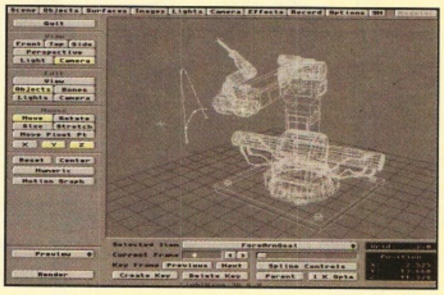
The first thing you need to do is decide which objects need to be parented to others.



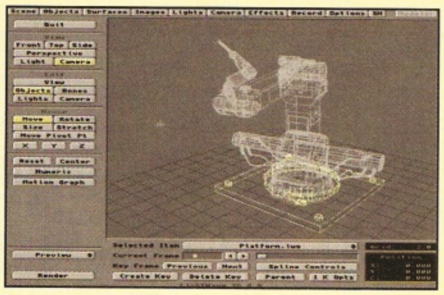
Next add two null points – one parented to the end object and the other as a goal object.



The objects in the hierachy will attempt to follow the goal object around the screen.



Each group of objects can be given their own goal and will ignore others.



In this example the base of the arm is immobile because it's unaffected by its descendants.

near future. The fact that it's easy to cross compile the plug-ins will also help.

Easy Motions

The other major new addition, and the feature that LightWave 3.5 lacked, is inverse kinematics. This important feature enables the creation of realistic motions for humans, other jointed creatures and even machinery. Although it is a desirable feature, the implementation of inverse kinematics in most packages has, on the whole, been diabolical. In most instances, inverse kinematics has been made horrendously complicated to set up and use. But you'll be glad to hear that LightWave's implementation of this important feature is relatively straight-forward (as these things go) and yet remains quite powerful. If you want to find out more this feature and how it is used within LightWave 4, take a look at the walk-through in the box above.

All Wrapped Up

One of the more frustrating aspects of using LightWave 3.5 was that you had to use a great deal of imagination if you wanted to know what the surfaces of your objects would look like before you rendered them.

The PC version of LightWave provides you with images of spheres that have been wrapped in recently defined surfaces in the Surfaces window. This gives you an idea how your objects may look with a particular surface.

The Amiga version, while not displaying the images in the Surfaces window, quickly renders a sphere with the currently selected surface and stores the images of each one you preview. You can also set options for your surface preview including the addition of a background image – which is most useful for viewing translucent surfaces like glass.

Another welcome addition to the surfaces panel is a new Glow option. As you might expect, this feature is used to make an object's surface appear to glow. This could be useful for all sorts of things – lights on a spaceship could be created quite easily by selecting random polygons on the hull of a ship and making the surface glow. Unfortunately, using the Glow Effect can incur huge rendering overheads – sometimes taking longer to render the glow than the object itself.



Jump gates ahoy! Create your own B5-inspired images with LightWave.

> "You'll soon find yourself creating something **wonderful** and unique."

What a Scream!

Another major change is a new version of the ScreamerNet (SN) software. SN II has a much more simplified interface and can now batch render several scenes. Previously, it was only possible to use SN on an Intel-based CPU running Windows NT, but now SN can be used with any processor including the Amiga and Alpha workstations. But version II requires that your machines are networking in such a way that a directory is commonly accessible to all of the machines.

That's just about all of the major changes to LightWave's layout, except for adjustments such as improved handling of background and foreground images, a new Alpha shadow option for surfaces, the displaying of a bone's active area, some new screen modes that don't work properly and the fixing of the show and hide objects in the scene requester.

Modeller is pretty much untouched except for the addition of some plug-ins. Some of the ones that are currently available include an improved object viewer, a saver for 3D Studio, DXF and Wavefront objects, a VRML exporter and a few others.

The amount of new features on LightWave 4 might seem few for the large increase in price (version 4 costs $1,000), yet because of the quality of the features LightWave could now be said to be the best priced 3D rendering system on any platform.

LightWave 4.0

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Preview Secal

Within the next month a new programming language called Secal will officially appear on the Amiga. ***Paul Overaa*** *previews the language and examines its usefulness...*

Secal has been developed in Hungary by Digital Reality and it's a compiled language whose basic syntax is quite easily learnt. For example, all instructions are terminated with C-style semicolons while comments are marked out using the '|' character.

Comments can either be placed at the end of the line, so they serve as the end of comment markers, or between statements with two '|' characters to delimit the remark. Both these lines would be valid Secal statements:

```
s:=s+1; | an end-of-line comment
t:=t+1; | a mid-line comment | t:=t+s;
```

The language also supports if-then testing and other high-level constructs including do-while loops written in this fashion:

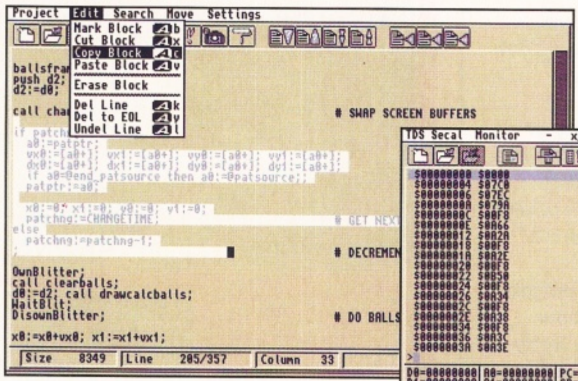
```
while s>t do
        s:=s+1;
;
```

Variable types are primarily based around those supported by the 680x0 processor and there are two basic formats: the full name of the type, byte, long, etc, for defining a structure or a variable, but an abbreviated form for specifying a type within executable code statements. To declare an unsigned long variable called MyPort, for example, you would use this expression:

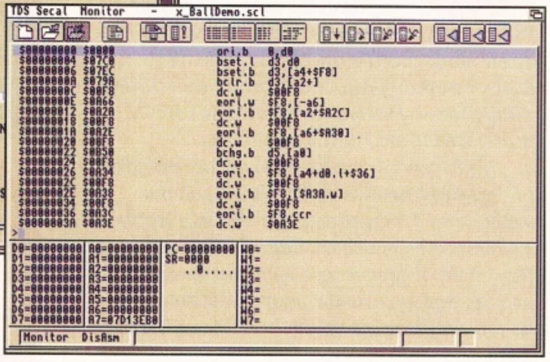
```
var MyPort:ulong;
```

Other variable types can be created using a DEF instruction which is similar to the typedef statement found in the C language. Amiga library functions also have a C-style flavour since, having opened a library, you make function calls in the same way as in a C program.

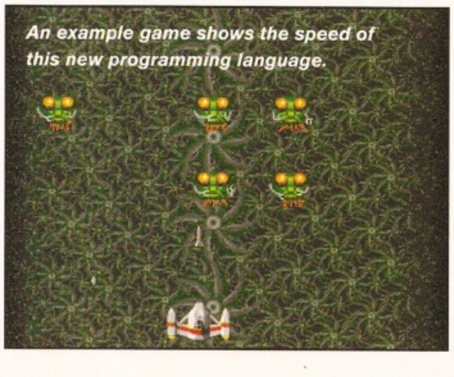
The editor provided with Secal is quite well implemented and offers an integrated programming environment which allows you to compile, monitor, run and debug your programs. But the editor does have a few non-standard characteristics, such as having to use a 'Mark Block' menu option before you can mouse-select a block for copying.



Above: *The integrated Secal editor is well implemented although it does have some non-standard characteristics.*



Below: *The monitor facilities are biased towards the 680x0 coder and this might frighten off some users.*



An example game shows the speed of this new programming language.

The 680x0 Connection

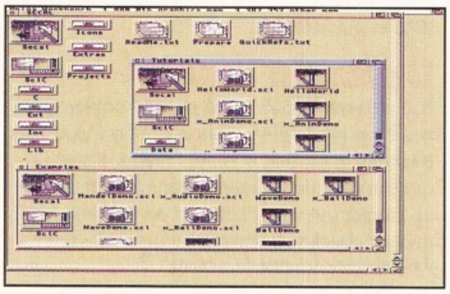
From a high-level viewpoint Secal has similarities with both C and Pascal, but it is also clear that the language has been written with Assembly language programmers in mind. For instance, variables can be used in both high-level Secal instructions and embedded Assembler-level code like this:

```
var x:word;
x:=x+1;
move 1,x;
```

The 680x0 microprocessor's register set is also usable at high level, which means you can write expressions which involves both a high-level variable and a 680x0 register like this:

```
x:=d1-2;
```

and the closeness of Secal to the 680x0 model is mirrored in the executable code produced. This makes properly written Secal programs extremely fast running.



Many examples are going to be provided with the Secal package

Distributors wanted

Digital Reality Software Developments are based in Budapest, Hungary and are looking for UK and European distributors. Fax: 00 361 2512385.

The Bottom Line

This preview is based on a preliminary version of Secal, but a full range of support files and plenty of example code were provided, so it was easy to get a good idea of what the final package will offer. My machine crashed a few times while using the debugger, but given the limited documentation (short disk-based docs) this is hardly surprising. It will be interesting to see the printed manual for the official release of Secal.

Despite the built-in 680x0 connections Secal looks to be a language whose core high-level facilities will be both useful and easy to learn. Many Amiga coders who know little about the 680x0 instruction set could learn to use Secal. Secal is clearly a language worth keeping an eye on and when the official commercial release appears, which is expected to be priced at around £30, we'll be doing just that! ■

MyMoney 1.1

Nick Veitch *tries some remedial therapy on a bank account that's well beyond reconciliation.*

Computer software which claims to be able to sort out your financial situation always seem to be a bit optimistic to me. Many of them presume you should know what you spent your money on. Listen, if I was the sort of person who could remember where all my money went, I wouldn't need the software would I? But I digress...

MyMoney 1.1 is a financial control program, or Personal Cash Controller as the authors would have it. In essence, it is akin to a highly specialised spreadsheet. First of all you set up the details of your various accounts (building society, savings account, current account and so on), and then set up the interactions between them, and the outgoings. Each outgoing should conform to a particular group to enable you and the software to analyse your spending habits and predict future cashflow.

At any time the user can call up the overview function and look at little bar graphs of their money across a variety of accounts, and see just where it has all got to.

Lack of intuition

Unfortunately, MyMoney 1.1 doesn't have much of a graphical display and even with the automatic scaled axes, it is a little difficult to make much of the graphs. Clicking on a bar, though, will bring up more details for that particular area in the form of a text listing of transactions. This is all very well. You can enter the required information and get the desired result, but the different sections are somewhat confusing. The manual does go some way to dispel the doubts, but why not create an intuitive interface in the first place?

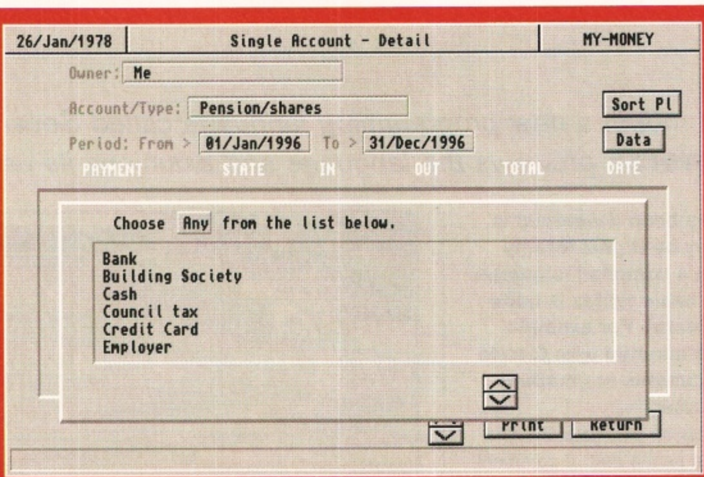
For some reason, although I went to great pains to set the correct year, many of the data entry screens defaulted to the system clock. This is rather annoying on an unexpanded machine. If the software is going to rely on the system clock, then the programmers would be better advised to have the facility to change the date in the software.

Unstable entries

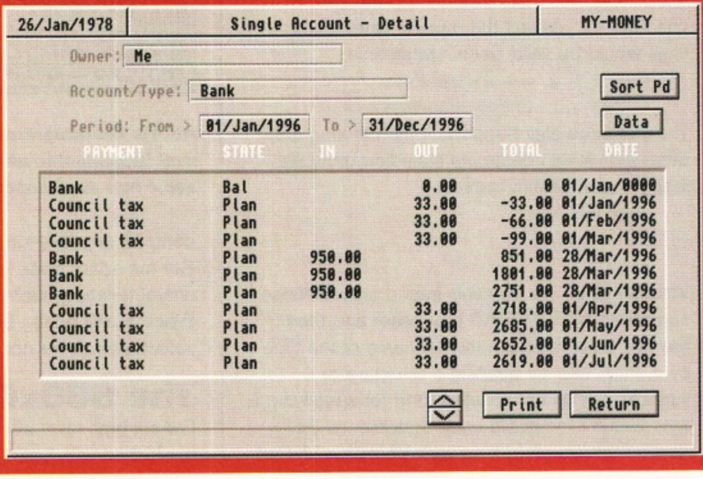
It is also rather difficult to change entries once you have made them. This is doubly frustrating, because in my first attempt I made lots of duplicate entries. I know I shouldn't have been so stupid, but when I clicked on the data entry gadget absolutely nothing happened – there was no discernable feedback.

The software does seem to be a little unstable. Once a screen opened with all the gadgets clustered on top of each other in the bottom right corner, which wasn't helpful. On another occasion, while entering data for a periodic payment, bizarre error messages appeared at the bottom of the screen, followed by a complete system crash – not even a guru. Obviously, if this occurred after tediously navigating the input system to enter loads of details, it would have been rather annoying.

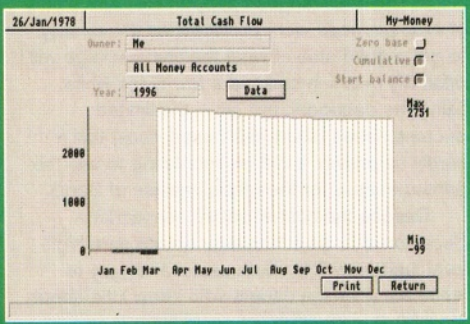
Add the counter-intuitive interface to its unpredictable workings and you have a product which isn't particularly inspiring. The software is workable enough, and in some parts it is quite clever and offers useful features, but given its current state of ease of use, you would probably do better putting you pennies towards a copy of the old, but faithful, Personal Finance manager.



When you are viewing accounts, you can select any from the list you have created. Creating them is easy – but deleting them proves to be quite the opposite.



Detailed reports on specific accounts are available when you use MyMoney, which can give you a blow by blow account of exactly where your money has gone.



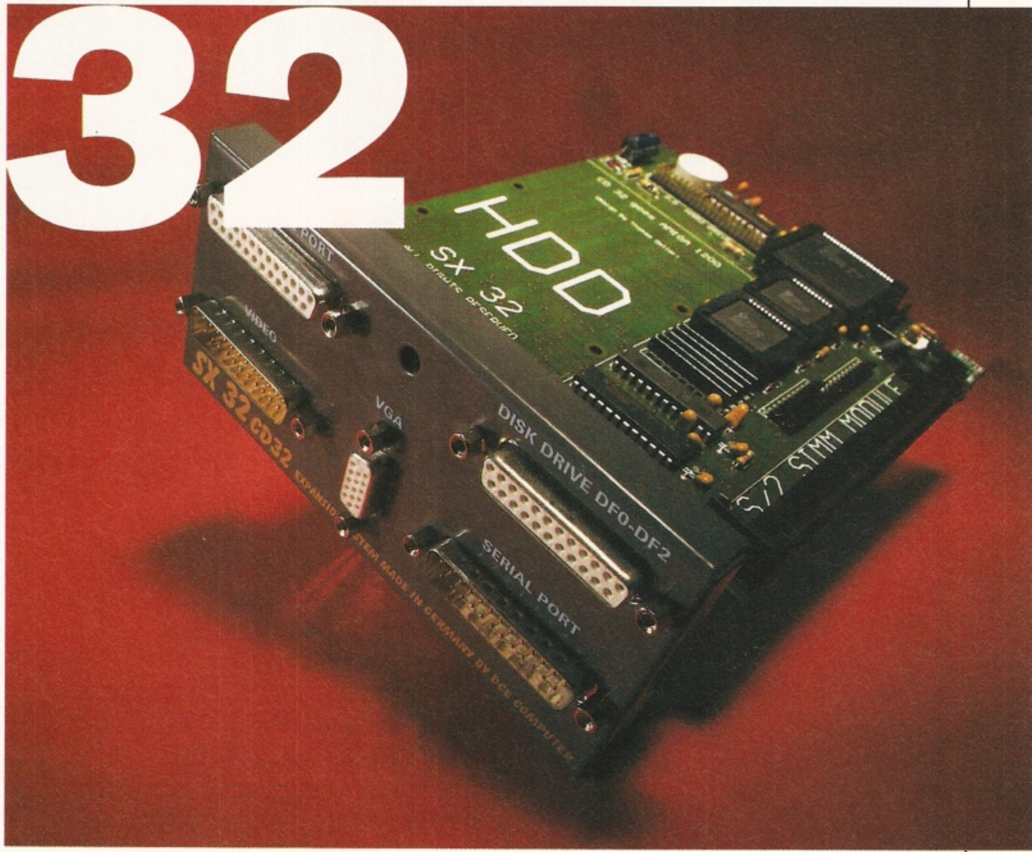
MyMoney's graphical display is quite nice to look at, but it isn't big enough, or labelled well enough to be of much use.

MyMoney 1.1

Price:	£24.99
Supplier:	MySoft
Contact:	71 Springfield Avenue, Whitehaven CA28 6TT

Verdict: 35%

SX32



Expansionism is not a dirty word to ***Nick Veitch,*** *so he was thrilled at the prospect of reviewing the SX-32.*

The CD^{32} was a wonderful, next generation technology machine at its launch. But owners may have been a little misled into thinking that it could be easily expanded into a fully functioning home computer.

The original expansion module, the SX-1, was cumbersome and introduced almost as many problems as it solved. Situated outside the casing, it was an inconvenient and rather unstable extension, not helped by the general suspiciousness of the CD^{32}'s expansion connectors. Added to that the inconvenience of an external only IDE interface, and your nice, compact and portable CD^{32} turns into some sort of miniature freight yard.

It was certainly possible to improve upon this design, and finally, someone has. Enter the SX-32! This compact unit slips inside the expansion port at the rear of the CD^{32} and becomes completely engulfed in the console's casing when fitted.

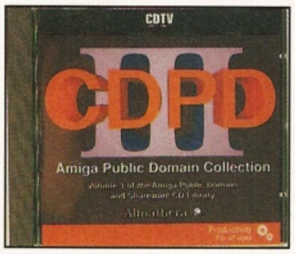
On the back plate you will find standard Amiga serial, parallel and disk drive ports, for connecting to anything you would normally associate with these sockets. There is also an RGB port, the same as the one found on the back of the A1200, which is accompanied by a rather useful VGA socket, for connecting to most monitors. This makes the CD^{32} the most versatile machine when it comes to video, because it already has S-VHS, Composite and RF connections.

There's More Inside...

But many of the really interesting changes are inside. The ability to add memory via a simple Internal SIMM slot is a great boon for CD^{32} owners. Although the CD^{32} is capable of many different tasks, 2Mb of memory is not really enough for many applications. It would certainly not be enough to print out graphics-heavy pages from a program like Wordworth, for example. Plus, the addition of Fast RAM will actually speed up many of the machines functions by up to 200 per cent.

With the SX-32, adding an internal hard drive is not easy, but it is possible. With the A1200, when you were told you could only fit a 2.5-inch IDE mechanism, it was true. In fact, many 2.5-inch mechanisms are just a little too fat to fit easily. And when we installed one in a CD^{32}, we had to take the casing apart to fit the assembled SX-32 into it. But it does eliminate the need for an external casing and power supply (which can cost around £35) and the need for a few more cables snaking across your desktop. Power is taken from the CD^{32}, but be careful if you are planning to add more than one extra floppy drive as well – the power supply may not be up to it.

> "This expansion system offers some **great features** – certainly streets ahead of the SX-1."



A PD utilities disk comes bundled with the SX-32 – to give you a taste of things to come.

Adapted Keyboard

Rather strangely, the designers have not included a keyboard socket (even the SX-1 had one). However, Eyetech are willing to provide an Amiga keyboard adapter to fit in the CD^{32}'s own keyboard socket for £10 (the official keyboard, the A4000 one, costs around £40). Because the SX-32 fits inside the CD^{32} casing, it is impossible to have it and the FMV module installed at the same time. But you can remove the SX-32 relatively easily, and pop the FMV module back in to watch MPEG movies. It's not an ideal solution, but it's a feature worth sacrificing for the convenience of having the expansion module fit internally.

Despite these niggles, this expansion system offers some great features – certainly streets ahead of the SX-1. If you have not already expanded your CD^{32}, the SX-32 comes heartily recommended.

SX-32

Price:	£199.95
Supplier:	Eyetech
Contact:	01642 713185

Verdict: 88%



Tekmagic 2060

A1500 and A2000 owners who want a bit more bite from their machine can power up with this new accelerator, as Graeme Sandiford finds out.

The Tekmagic 2060 is part of an exciting change that has taken place in the Amiga Shopper offices. The office A1500 was a much maligned and neglected machine, completely out of date and of not much use.

True, it was an excellent design for its time and is still a very expandable machine, but it's slow and suffers a terrible blight in its out-dated operating system. Because of these factors the machine has been over-looked for sometime now in favour of newer and more powerful Amigas based on the AGA chipset, like the A1200 and A4000. The A1500's operating system has been replaced with 3.1 upgrade kit, but it still performs at a snail's pace.

The reason for the A1500's lack of speed is that it is based, like the A500 and A2000, on the Motorola 68000 processor. But the Tekmagic 2060 accelerator is based on the much faster 68060 processor that has been used in the CyberStorm and Blizzard 1260 boards for the A4000 and A1200. It has the processing power to give either a A1500 or A2000 a new lease of life.

Tricky fitting

As with most major hardware additions, ease with which an expansion board can be fitted is important. The 2060 is a Zorro based card and slots quite easily into the machine. But getting the board to fit inside your machine is only half the story. The other – and by far the most complicated – half is getting the thing to work properly. To say that it was a complicated and tricky process is as much of an understatement as saying Playstation owners only have a one track-mind.

Fitting the card requires a good understanding of Amiga hardware because there are several jumpers that need to be set before the board will operate properly. Yet most people who have a A1500 or A2000 will probably have had their machines long enough to be able to handle the job.

Installing the software is a lot simpler. There is software for the SCSI controller, Kickstart re-mapping, 68040/68060 libraries and utility to re-boot your Amiga in 68000 mode.

Enhanced performance

Once installed, the 2060 does more than simply accelerate your machine's processing power. It offers other benefits that will enhance the performance of your machine. Just about everything you do with your computer has to go through its memory, so the overall speed of your machine is determined by how much memory it's got. The A1500 and A2000 have 16-bit memory, unlike the 32-bit memory of newer machines, and this could slow down the board. But cleverly, the 2060 has four 72-pin SIMM (32-bit) sockets so that your machine is not hampered by slow memory. It also has four additional 36-pin slots.



To help speed up data transfer and enable the addition of peripherals, the board comes equipped with a SCSI II interface. This includes an internal connection, as well as an external one, so that you can attach a hard disk or CD-ROM drive internally. However, (as you might expect when squeezing a SCSI interface, eight SIMM sockets and big fat 060 processor on a single board), there isn't any room for mounting a hard disk on the card.

Compared to its cousins, the Cyberstorm and the Blizzard 1260, the 2060 performs at a slightly slower rate. This is due to the 16-bit architecture of the machines that it will be used on. Although this is unfortunate, it is not too noticeable in general use. But when performing a processor-intensive task such as rendering, its slowness is obvious, especially if you have a mixture of 32-bit SIMMs and 16-bit Zip RAM and you run out of 32-bit memory!

The TekMagic 2060 is an impressive piece of hardware, but it is worth considering whether adding more peripherals to an old machine instead of upgrading to a newer model, is the right thing to do. That doesn't mean it's not worth having the 2060 – take a A2000, slap in a Tekmagic 2060 accelerator, a fast hard disk, CD-ROM drive, KS 3.0 and a graphics card and you'll have yourself one nice machine. But in the long-term you are not going to be able to upgrade your machine forever – and the older your machine gets, the more unreliable it will become.

All the same, the 2060 is a viable upgrade path and is a tidy piece of kit. In fact it's so good that Amiga Format's editor has stolen the office A1500. Grr…■

Tekmagic 2060

Price: £799.95
Supplier: Power Computing
Contact: 01234 273000
Verdict: 90% Star buy

Epson



With prices tumbling, adding a scanner to your set-up has never been cheaper. Larry Hickmott *counts the dots per inch...*

Getting information into your Amiga has never cost so little as it does nowadays. One of the most popular methods, scanning, hasn't always been like that. Not so long ago, a decent flatbed scanner cost around £700. Now you can get one for under £360.

A drop of almost 50 per cent in such a short space of time is quite amazing. And in this price range comes the GT-5000. Coming from a company which has a fine pedigree in producing excellent desktop scanners, the Epson GT-5000 is a 24-bit flat-bed scanner that comes in two forms – parallel and SCSI.

To use the SCSI version, you need to buy the latest version of ImageFX (2.1a), which when you add the extra you'll pay for the SCSI model anyway, makes the whole package a lot more expensive than the parallel equivalent. The SCSI version does, however, free-up the parallel port for use with your printer. Just be careful buying the SCSI version because some SCSI cards work with ImageFX and some do not.

The version of scanner most people will probably buy is the parallel one. With only one parallel port on the Amiga, this means removing your printer from this port before being able to use the scanner. If you have a boxed Amiga, you can add an I/O (in and out) card with extra parallel ports to solve this.

I use the much dreaded switch box to get around the problem. The switch box, I am told, is not the safest device in the world, but having had mine for five years without blowing any chips inside my Amiga, my experience is testament to the fact a switch box can be used safely within certain guidelines. However, that is a story for another day.

In The Driving Seat

Just like using a printer, before you can use the GT-5000, you need a scanner driver for it. I currently use ImageFX 2.1a, but it also works with version 1.5.

The other main choice of software is Powerscan from Power Computing, distributors (for the Amiga) of the Epson GT-5000. A scanner driver by the makers of Art Department Professional is also available, costing around £90 (with cable).

The final link in getting the GT-5000 up and running is a parallel cable. These are no ordinary cables and so are not easy to get hold of. I had mine made up by a knowledgeable colleague which saved me a packet, but Power Computing supply the Powerscan software and a cable for under £50.

One of the reasons I'm mentioning the different bits and pieces is because I've had many calls lately from people who have bought the GT-5000 from a PC supplier where they have paid as little as £350 and then found to their horror, that they needed a cable and software to get it to work on the Amiga. But if you already have ImageFX 1.5, all you need is an ASDG type wired parallel cable which should cost no more than £20. With the PC version, you also get a CD (Corel Draw 4) with around 100 True Type fonts that can be used with programs such as Wordworth.

> "The GT-5000 is a **delight to use** ... both grey scale and colour images are superb."



ImageFX from Nova Design is one of the programs you can use to drive the GT-5000.

Speedy Scanning

In action, the GT-5000 is a delight to use. It's light and small, taking up only a little more than an A4 space on the desktop. The only button you need worry about is the On/Off switch, as the rest is all controlled from the software.

Being a 24-bit scanner, you can scan images containing up to 16.7 million colours, but the software (ImageFX in this case) also allows you to choose two colour, for scanning line art and 256 grey scale, for scanning black and white photographs or illustrations.

With a maximum optical resolution of 300dpi and a software enhanced resolution of 1200, there is enough resolution in there for most uses. (The specs for the printer list the maximum resolution as 2400dpi, but using ImageFX I was limited to 1200dpi.)

The rest of the features you have at your disposal will depend on your software. With ImageFX driving the GT-5000 you can adjust the sharpness of the scan, the brightness and the type of dithering used.

In operation, previews come up very quickly – faster than on the SCSI based GT-8500 on my PC. Even better is the quality – both grey scale and colour images are superb.

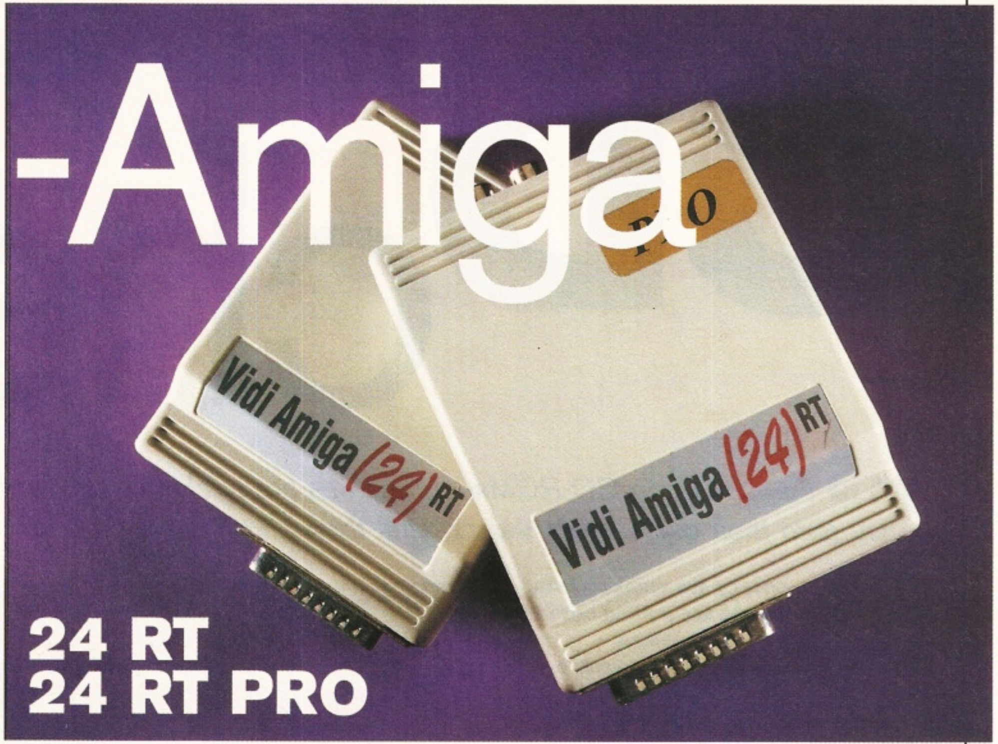
I can't recommend this scanner more highly. If I was asked for my top 10 hardware add-ons, this would be near the top. It's that good.

Epson GT-5000

Price:	£399 (rrp)
Supplier:	Epson UK
Contact:	0800 220 546

Verdict: 95% — Star buy (Amiga Shopper)

Vidi-Amiga



In the hands of new owners, these digitisers now have a new life. **Steve McGill** *finds out how much they've changed.*

With Rombo's decision to pull out of the Amiga market, it seemed for a while as if the Pro-Grab from Harwoods had a clear playing field to strut its stuff.

Unfortunately for Harwoods, but not for the rest of us, the Vidi-Amiga range of digitisers has fallen into the hands of Quantum Leap Software. We've looked at the Vidi-Amiga 24RT and Vidi-Amiga 24RT Pro before. But because they've been re-targeted and repriced, we thought it would be a good idea to look at them again.

The RT in the title refers to Real Time. Both units are 'Real Time' video digitisers (or grabbers). This effectively means that they will grab a full frame of video, consisting of two fields in 1/25th of a second. It means that moving objects can be captured without producing artifacts. As such, the RT range of digitisers can grab images with incredible clarity and usefulness. The only difference between the units apart from price lies in the resolution they can capture images in.

The 24RT Pro can capture a maximum of 720 pixels per horizontal line. Half that figure for the 24RT. If you absolutely must have the highest resolution grabs then the more expensive Pro is the one to go for.

In terms of design, both units are exactly the same as the original Rombo ones. The cases are the same; probably excess inventory; and still hog the parallel port while at the same time blocking the serial port. But to save you frustration, a parallel lead which enables the unit to be distanced from the back of the Amiga is supplied with both units.



Ever frame held within the memory of the Edit section can be processed in one batch.

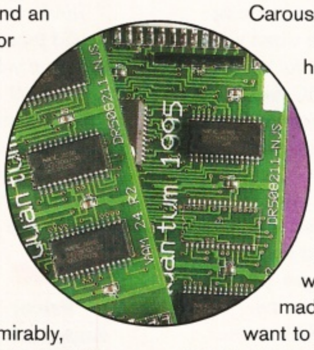


The software supports 24-bit cards, so grabs can be touched up and displayed at the same resolution.

Also supplied with both units is an independent power supply. This is a boon. Older Vidi units used to draw their power from the Amiga itself – a state of affairs which could cause problems depending on the other peripherals the user had connected.

Three inputs

Both units sport three video inputs: two for independent composite sources and an S-connector for Hi-Band (S-VHS or Hi-8mm) video. This set up helps cut down on wear and tear from constant unplugging and re-connection of video sources.



The software remains unchanged also, but is powerful nevertheless. It still consists of four core modules: the grabbing section, the mixing section, the editing section and the Carousel. Each section fulfils its purpose admirably, although the design leaves a lot to be desired from a user-friendly point of view.

The software supports the Harlequin and Picasso 24-bit cards, so grabs can be displayed and touched up in all their 24-bit glory (considering that a standard video signal can be considered pseudo 18-bit shows the true power of the grabber). AGA Amiga owners can feel lucky in this respect in that HAM 8 represents almost the perfect display for video signals. Try capturing an image, recording it back to video and then watch it on an ordinary domestic set up. You'll be hard pushed to spot the difference from the original footage to the grab.

One of the most underrated aspects of the software lies in its ability to batch image process every single frame held within memory from the Edit section. It's also one of the areas where it would have been nice for Quantum Leap to have commissioned someone to expand the software to allow more scope for playing around with the image processing parameters.

As it stands, though, it's still very good and to some degree justifies the purchase of either unit from that standpoint alone. In conjunction with the Carousel, the software is far more powerful than some critics have realised.

The Carousel, of all the sections, certainly could do with a re-think. If you're willing to work with Mono-frames, the scope exists to turn your Amiga into a digital editing studio. Although the means are there to cut and paste together an edited production, the current set up of the Carousel somewhat inhibits the potential.

Nevertheless, using the tools to hand, it's possible to do dry runs of edits to see what they look like when played back. It also means that, memory allowing, full sequences of video (adverts are ideal for this) can be captured into memory and then studied in detail later. Doing this lets you work out why and when a cut was made. Consequently it can help if you want to get into serious video editing, but lack the resources to do so.

In all, the Vidi units represent a seriously powerful creative video resource. If you've got an expanded Amiga and either a video camera or video recorder to hand, you can create your own individually stylised videos. Don't be put off by people who might knock what can be done. They'll try to tell you that only if you've got £1,000s can you hope to be creative. Don't listen. With either of these units the potential is staggering. In a commercial, business, or domestic environment, the Vidi units are virtually untouchable for value for money. Thoroughly recommended, though it would be even better if the price could be brought down a bit.

Vidi-Amiga 24RT/Pro

Price: £146 (RT) £249 (Pro)
Supplier: Quantum Leap
Contact: 01506 461917

Verdict: 90% — Star buy

CD check out

With all that space on CD-ROMs, companies are packing more and more programs, graphics and music onto their discs. **Nick Veitch** *sifts through all that's on offer this month...*

Honestly, it's amazing what people are putting onto CD-ROMS nowadays – everything from screen blankers and wedding snapshots to UFO pictures and 'true' stories are just some of this month's subjects. Broaden your horizons, read this:

Phase 4

EMC's Phase 4 disk is subtitled 'desktop Video Dreams', which should give you some idea of what you are likely to find on it. That's right, it isn't an MPEG version of the film with all those hyper-intelligent ants in it, as some of you may have been hoping.

This CD concentrates more on producing the films in the first place. For any multimedia presentation and a lot of corporate video work, you are going to get through an awful lot of images, sounds and fonts. So, EMC have simply collected these precious commodities in large quantities and have served them up on a simple to use CD.

The quality of the background images, which fill the greater part of the disc, is very high indeed. As well as general brushed metal, marble and funky texture type images, you will also find more specific stuff, such as the collection of Wedding images. OK, there is probably nothing here that you couldn't create yourself, but it would take you a long time to generate 300Mb of images yourself which makes the asking price seem very reasonable.

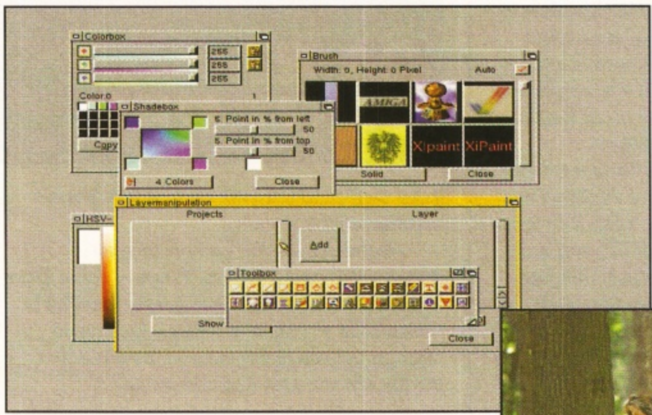
There are a few tools and utilities included too, and though this is the weakest part of the disc, some will prove invaluable. If you want to find out what a commercial multimedia package such as MMexperience or Imagevision is like, try out the huge demos thrown in.

Another slickly presented disc which should find a place in the collections of those dabbling in Multimedia or video.

Phase 4

Price:	£39.99
Supplier:	EMC
Contact:	01255 431389

Verdict: 91% Star buy



Aminet 11 not only contains the usual new software, but also the full version of XiPaint 3.2.



Aminet 11

Goodness me, is it that time again? Yes, it is another Aminet CD, but this time I'm glad to say that the criticism of earlier volumes seems to have been taken on board, and this version mostly contains new files. This must have been particularly difficult, considering the time that the Aminet archive was down and no new software could be uploaded because of a fault at the main archive site.

Part of the reason for the original files is the inclusion of the full version of XiPaint 3.2. Certainly, this is the best way to get hold of XiPaint. There are still too many features to be tightened up to give it the feel of a finished program, but combined with all the great resources on this disc, it is hard to turn down.

There is also a bit of a picture theme, with over 1,000 pictures consuming nearly 130Mb of space. The quality, as you would expect, varies considerable, but on the whole there are quite a few which are excellent.

You always discover something exciting on every disc, and I'm particularly taken with the Red and Blue animations, which although they are simple, they are very effective when used with a set of 3D glasses (which you can obviously make à la Blue Peter with a few sweet wrappers and a bit of cardboard.) But on





Phase 4 is the latest in the excellent series of DTP and DTV support CD-ROMs.

the whole this is a much more worthwhile disc than its immediate predecessor, and it's well worth shelling out for.

Aminet 11

Price: £11.99
Supplier: Active Software
Contact: 01325 352260
Verdict: 88%

Hottest 6

PD Soft's latest collection of disks on a disc is very much in the old-school style of layout. For the most part the disks are stored as LHA or DMS files, which does mean you get a lot more for your money, but at the same time, un DMSing them again is a major pain. Some disks can only be stored in this format, but I think it is used a bit too often here.

Having said that, the CD Manager Tool is excellent. This front end can be used to search effortlessly through the catalogue to find the disk you want, and then it starts off the decompressing for you.

A lot of the stuff is only of above average quality, but the latest 100 fish disks are here, and there is a rather comprehensive section on fractals, including a host of mandlebrot generators, and so on. A good all-rounder.

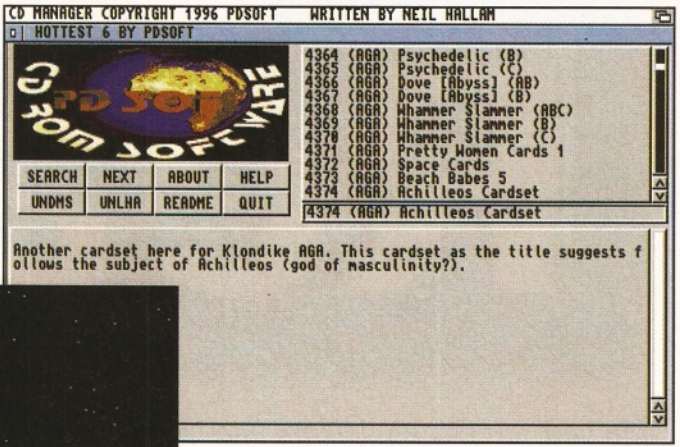
Hottest 6

Price: £14.99 (plus 75p postage)
Supplier: PD Soft
Contact: 01702 466933
Verdict: 85%

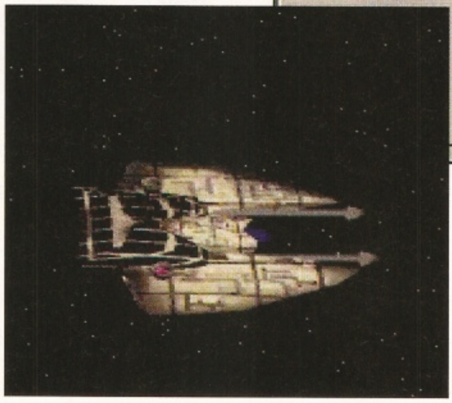
Tools Unlimited

Of all the things I would possibly consider making a compilation disc out of, screenblankers wouldn't figure in the top one hundred. And yet, someone has created one. Still, if you like Screenblankers, you will certainly find at least a dozen excellent ones here, including the rather superb Super Dark and

Right: ***The new Hottest CD has its own custom interface.***



Below: ***A picture of a spaceship from the collections of blankers on Tools Unlimited.***



Midnight. They are not all Amiga display blankers, though – you will also find a blanker for whatever display card you may happen to own, and most of them seem stable enough.

Even the blanker fanatics who put this collection together couldn't fill a whole disc with screenblankers, so you will also find quite a few animations, sound modules and fonts, which can, of course, be used in conjunction with the blankers on the disc.

If you are looking for your ideal screenblanker, you are certain to find it here. If there isn't one in this collection that does precisely what you want, I'm afraid you're going to have to write it yourself.

Tools Unlimited

Price: £TBA
Supplier: PD Soft
Contact: 01702 466933
Verdict: 80%

Encounters

Whether you are a believer or a sceptic, there is something wonderful about a CD full of UFO related text and images. If you do believe, you can plough through the incredulous drivel and recite 'facts' to your mate in the pub. On the other hand, if you are a sceptic, they are a great source of amusement.

Some of the text files found here could not possibly be believed by even the most fervent Bartucca. I particularly enjoyed the text from a doctor written in the 60s which said there were 79 aliens, each with their own spacecraft, and their mission was to undermine faith in God and overthrow the government of God's own nation – the good old US of A.

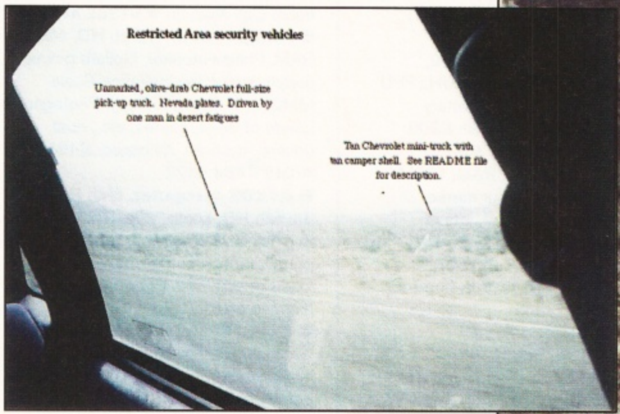
Still, there are thought-provoking testimonies and loads of stuff from the ex-Soviet Union which you may not have come across before. The disc is reasonably well front-ended, but the cataloguing of the image files leaves something to be desired.

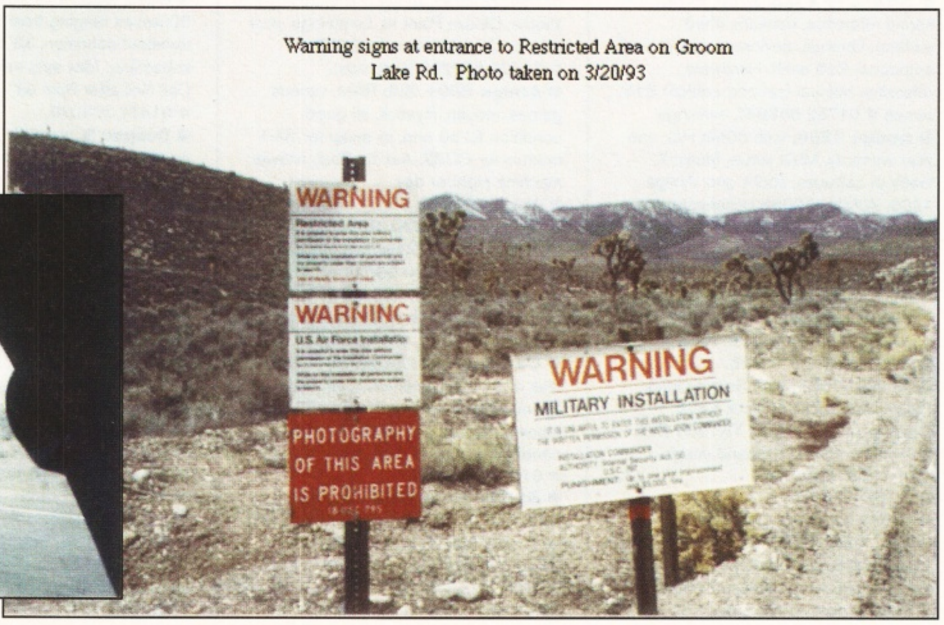
Encounters

Price: £13.99
Supplier: 17 Bit
Contact: 01924 366982
Verdict: 82%



Here in the office, we all believe in UFOs and aliens. But you would too if you'd ever met Frank Bartucca.





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● **Amiga 1200,** with 60Mb HD, one year warranty, MIDI setup, Music-X, loads of software, £294 ono. Amiga 1200, 40MHz 68030 accelerator, no RAM, £99 ono. (Northants) ☎ 01536 410251.

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● **Amiga 1500,** with Sony monitor £295. Hama 292 genlock £125, Opalvision £125, Sony YR1000 £70. Video Director £40, Sound Image vision mixer £50. John ☎ 01332 769666.

● **A4000** including 40MHz Warp Engine, 20Mb RAM, Picasso II, 400Mb hard drive, multiscan monitor, all manuals and some software. Ideal 3D rendering system. Will accept £2,100 ono for quick sale. ☎ 0181 300 3862 (evening) or ☎ 0171 721 7050 (day).

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● **A500+,** 2Mb RAM, Alfa Data 80Mb hard drive, all manuals and software, 200, A1200 clock module £5. All in good working order. Call Mark on ☎ 01455 636742.

● **Amiga video back up,** store 150 disks to tape or back up H/D £25 P&P free for all Amigas. ☎ 0161 790 0962.

● **Wordworth v1.1,** £5. Interword/Base/spread £5, all three Star Trek, A1200, Wing Co., FOG, Sensi Soccer, Sim Earth, A320 Airbus. £25 the lot. ☎ 01252 616109 (Fleet, Hants.).

● **A1200** with 200Mb hard disk and Swift 9C colour printer. Chaos pack, excellent condition, loads of software and mags, £400 ono. Daniel Pipe, 17 Batchelors, Pembury, Tunbridge Wells, Kent TN2 4ED.

● **Amiga 1200 as new,** complete with mouse, joystick, Workbench disks, manuals, plus some original games, software and 100 blank disks, £230, includes cash on delivery service. Please call ☎ 01322 664136.

● **Amiga Commodore 1500,** colour monitor 10845, keyboard, mouse, Amstrad printer, Platinum Works, Deluxe Paint III, Lemmings, plus others. Original manuals. £399. ☎ 01423 520792 (evenings).

● **Amiga 500+** 2Mb RAM, various games, mouse, joystick, all good condition £150 ono, or swap for SX-1 module for CD32. Ask for Paul, answer machine night or day. ☎ 01132 311698.

● **Microbotics VXL** RAM-32 (includes 2Mb of 60ns Fast RAM for Microbotics VXL-30 68030 accelerator. Compatible with A2000, A1500, A500 or A500+ computers. £120 ono. ☎ 01704 834335, ask for Mick.

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● **A2091 SCSI interface,** bare £40, Citizen ABC 24-pin printer, colour kit, tractor feed and print software £140 (postage included). Phil ☎ 01322 279297.

● **A1200** complete with DPaint III, manuals etc. Clean kit in fine fettle £195 post free. ☎ 01964 543592. Also 10 boxed games £28. Blanks £30 for 280!

● **AMOS and Compiler,** £15, OctaMED v4 original full version with manual £5, Protext v6 £30, Naughty Ones £10, Amiga and music friends sought in or near Northampton. Call Andy ☎ 01604 416722.

● **Software,** Wordworth 3.1a, Final Writer v.2, games including Rise, Combat Classics 1 and 2, Monkey Island. All boxed as new. No split. ☎ 0181 924 3902. Ask for Steve. £50 the lot.

● **Amiga 1438S** monitor, three months old, built in speakers, still under warranty, comes with all leads. £220. ☎ 0121 422 6962.

● **20Mb hard disk** 2.5-inch IDE, WB2.05 £25, 4Mb PCMCIA card £70. Phone ☎ 01954 210692.

● **For sale!** A CD-ROM for the Amiga, PC full of Commodore 64 including emulators to run Commodore 64 software. £25. Phone Matthew on ☎ 0181 523 8058 (office hours).

● **Back issues of Amiga Format,** every issue from October 1992 to September 1995. Excellent condition, 43 disks, cover and subscriber, plus specials. May split. Call Neil after 6pm on ☎ 01474 363070.

● **Back issues of Amiga Shopper,** 50 issues ranging from 2 to 53, excellent condition, 33 disks, cover and subscriber. May split or sell individually. Call Neil after 6pm on ☎ 01474 363070.

● **Devpac 3,** mastering Amiga Assembler, Dice 3, all originals, only a few weeks old, unused gift. £100 the lot. Phone Dave ☎ 0161 337 9601 (Manchester).

● **Viper Mk II** for Amiga 1200, 40MHz 68030 CPU and 33MHz FPU (68882), 4Mb Fast RAM, battery backed clock plus utility disk £300. Phone Paul on ☎ 01792 369901.

● **Amiga 1200,** 6Mb RAM, 125Mb hard drive, 14-inch colour stereo monitor, dot matrix printer, lots of games and business software £450 the lot. Will split. ☎ 01543 372807.

● **1Mb SIMMs modules** (four) for A4000. £15.25 each. ☎ 01274 662275.

● **A4000/030,** 25MHz 68882, 6Mb, 124Mb HD, Philips CM8833/II, second floppy, Audio Engineer, Vidi Amiga 12, Wordworth 3.1, Professional Draw 3, Professional Page 3, VistaPro 3, Cinemorph, DPaint IV, plus loads more. £1,000 ono. James ☎ 01752 558847.

● **A600,** 2Mb RAM, 30Mb HD, manuals, loads of software, Wordworth 3.1SE, 15 boxed games, Civilisation, Lemmings, Zool, Pinball, etc. PD, 70 mags with Coverdisks, joystick. £200 ono. ☎ 01844 213851.

● **Amiga 4000/040,** 10Mb RAM, 120Mb HD, Taxan multisync monitor (like 1942 not 1480), bubblejet printer, software includes LightWave, Vista Pro 3, Brilliance, DPaint etc. + WB 3.1. ☎ 01208 74408.

● **Vidi 24RT** Pro digitiser comes with power supply. £150. ☎ 01247 450362.

● **Games:** 48 originals, boxed as new, worth £500+: Monkey Island II, PGA Golf, Street Fighter II, Grand Prix, many other top titles. £100 ono. ☎ 01983 854293, evenings, for full details.

● **GVP genlock,** boxed as new. £175. ☎ 01992 574388 (evenings and weekend only).

● **Cinema 4D,** brand new package, UK version, cost new £199, offers around £150. Ask for Mac after 7pm. ☎ 01469 576487 (home), ☎ 01469 577088 (work).

● **A1200,** as new £200; monitor £100, Vidi 24RT £80; 030 40MHz accelerator board with 8Mb RAM/FPU £300, plus more available. Please call ☎ 0956 558024.

● **A4000 040,** 10Mb, 24-bit, monitor, various software including LightWave £1,500. Phone Alan, after 6pm ☎ 01202 535209.

● **Canon BJ-200** and Star SJ-144 printers, £100 each. Also Banshee, Heimdall 2, Beneath A Steel Sky, £10 each. Call Allan on ☎ 01382 452268.

● **Amiga 1200,** 170Mb HD, 6Mb RAM, Philips monitor, Goliath power supply, programs including Scala MM200, D-Opus, X-Copy, Photogenics. Loads of disks, games, etc., dust covers, joysticks. All boxed. £495. ☎ 0181 464 0177.

● **A1200 computer,** 6Mb RAM, 340Mb HD, comp. with 1084s monitor, two floppy disks drives, Citizen 12OD+ printer, mono scanner, Tabby tablet, loads of software. Price £650. Ring Norman on ☎ 01656 746934.

● **A600, 2Mb,** Zappo 270Mb HD, Cumana external drive, 1084ST Swivel base monitor, Canon BJ10ex bubblejet printer, software, accessories. No split, must collect. £550. ☎ 01743 248095.

● **A1200,** Viper 68030, 28MHz accelerator board with clock, £90; also Complete Amiga C with disks, only £20 P&P included. Call Kev, evenings only on ☎ 01904 629597.

● **Amiga A1200** RAM board (4Mb), PCMCIA friendly £120. ☎ 01892 669093 (day), ☎ 01892 524871 (night), ask for Jason.

● **Scala HVT100,** comes with manual, £20; Publisher come with manual £10; Wordworth AGA, £20 and manual; Wordworth 3.1 and manual £23; PPaint 6.1 no manual £25. Also 85Mb IDE 2.5-inch £35. ☎ 0181 575 7558.

● **For sale!** 50 3.5-inch double density disks, £7.50. Phone Matthew on ☎ 0181 523 8058 (office hours), or ☎ 0973 301 882 (evenings).

● **HAMA 292 genlock,** for Amiga S-VHS comp. inout fade key effects. Was £289, sell for £125 ono. ☎ 01753 592999, ask for Ray.

● **Communicator III** (Eureka), turns your CD32 into a ROM drive, complete with manual, CD, floppies, lead. £40. ☎ 01453 843989.

● **A4000 030** 4Mb plus 80Mb HD, loads of software, Sony monitor, joystick, mouse. £750 ono. ☎ 01582 30008.

● **Blizzard 1230-II accelerator,** fitted with 50MHz FPU. £320 new, selling for £180. No offers, will consider swap for 8Mb 72-pin SIMM. Call Richard after 6pm (Sheffield) ☎ 0114 269 0421.

● **A3640 card** from A4000 £325 ono; new A1200 internal disk drive £25, 50 plus games and software, eg Termite, Imagine 3, Final Writer 3, Organiser, Mavis Baecon, AmiBack. ☎ 01455 209777.

● **Emplant emulator** with SCSI option, £90 including VS.S software. Phone any time ☎ 01392 411843.

● **A4000,** 6Mb RAM 120 hard drive, multisync monitor, Canon BJ10SX printer, new cartridge, sheet feeder, joystick, mouse, and so on. Loads of software and games. £1,270 ono. Will split. Mike ☎ 01208 74408.

● **Amiga games:** Ruff 'n' Tumble, Mortal Kombat, Night Shift, Arabian Nights, £5 each. Smash TV, Heroquest, SWIV, Epic, Rome AD92, £3.50 each. Amiga Power issues 21-54 with Coverdisks. Phone ☎ 0191 273 7322.

WANTED

● **Roland TB-303,** Novation Bassstation and other "Acid" type samples (IFF) needed. Also any MED (Octa) modules. Cheers! Postage paid and all disks returned. Barry Best, 91a Plungington Road, Preston, Lancashire PR1 7UE.

● **AMOS contacts,** for new user group. Friendly, experienced advice for beginners to experts. To swap programs and ideas. Please contact Will, 52 Saint Oswalds Road, York YO1 4PF.

● **Keyboard for A4000,** no A3000 keyboards please, must be white. Must be in perfect condition. Can P/X my A3000 keyboard if required. Phone Dave on ☎ 01253 595300, or ☎ 01253 691082.

● **I'm looking for RPGs,** adventures, wargames, even old ones. In particular SSI's AD&D series (Pool Of Radiance, etc.). Send list to: Andrea Campanini, Via Fratelli Rosselli, 45, 47100 Forli, Italy.

● **GVP A530** HD/accelerator wanted. Any spec, any condition, even broken! Call Keith on ☎ 01567 820816 now!

● **Wanted:** Workbench 3.0 OS. Write to: Marcus Lord, 60 Bedford Avenue, High Crompton, Shaw, Oldham, Lancs. OL2 7DW. ☎ 01706 840116 between 5pm-6pm. All week.

● **Hilsea Lido** £9.99, Sim City 2000 £15, AMOS Pro £15, Gloom £12, Roadkill AGA £10, Tornado AGA £10. Contact Dave Hogben at 128 Gaston Way, Shepperton, Middx. TW17 8ES.

● **Wanted:** Powerscan 4 colour, or Epson flatbed, ProGrab 24RT and must be latest version, A1200 Blizzard 030 accelerator, with or without RAM. Call Paul before 5pm on ☎ 0113 255 5585.

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● **Amiga 2000**/3000/4000 keyboard, reasonable price paid. Any condition considered. ☎ 01203 675299.

● **Wanted:** ADI Junior reading 4/5 6/7. Please write to: Randall, 107 Hornhill Road, Maple Cross, Rickmansworth, Herts. WD3 2TG.

● **A3640 040** daughterboard to upgrade 4000/030 to 040CPU. Cash waiting for your chance to upgrade. Call David ☎ 01247 274408.

● **Amiga 500** users from anywhere as contacts or would sell or swap. Lend me an operating manual for the Zappo SCSI 3.5-inch.

PERSONAL

● Amiga contacts wanted. PD, swapping, etc. Contact Steven, 225 Trowell Road, Wollaton, Notts NG8 2EP.

● **Pen pals** wanted to swap games, software and tips for Amiga 1200. Send your lists to: Zoe Green, 35 Constantine Place, Baldock, Hertfordshire SG7 6ST.

● **Want to get** more from Blitz BASIC? Write to: Blitz, M. Tillet, 27 Hillside Avenue, Worlingham, Beccles, Suffolk NR34 7AJ. Monthly magazine printed on paper.

● **Pentrisoft,** the programmers' user group. Tips, advice and contacts. Free membership. Write to: Mark Harman, 3 Highlea Close, St. Leonards, o/s, East Sussex TN37 7SS for details.

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● **Visions**. A new SF/fantasy/horror fanzine (printed) needs fiction and artwork for issue one. Send S.A.E. for full details to: S. Kennedy, 41 Larwood, Worksop, Notts. S81 0HH.

● **No Limits BBS** 01293 413668, v34+, 1.2Gb, Xendrix Pro software, very friendly SysOp, free call to other Eurobell subscribers, complete Fidonet backbone, many other networks, perfect for points. Binarynet HQ!

● **Echoes BBS**, Camberley, Fidonet, Sportsnet, plus many more. Always the latest Aminet CD-ROM online. Free pointing all networks, Xenolink Pro software, friendly, helpful SysOp. All welcome, 24 hours 01276 62099.

● **Entity's a** new diskmag that aims to keep Amiga alive by getting you creating. Issue one and two ready. Contact: Jono, 25 Denness Place, Llandudno LL30 2UX, for more info.

● **New Amiga** diskmag. Only £2 for two disks on AMOS, Imagine, PD and lots more. Contact me via post for info: Jono, 25 Denness Place, Llandudno, Gwynedd, Wales LL30 2UX.

● **Mogsy's BBS.** Contact Anthony Morris on ☎ 01772 496590. Amiga only! Over 1,000 files on-line and CDs to choose from! Speeds 2400 to 28,800. 24 hours. Call today!

● **Black Magic BBS.** Online midnight till breakfast. 14400, full graphic (IFF) adventure game with sound. Online soon! It's a new BBS so spread the word. ☎ 01482 473458. ■

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Despite having a broken arm, Glenn Nevell from Uxbridge produced this fine picture. But he used the time at home to get to grips with LightWave to create this scene – the first big one he's done. Using his A400/030 with 14Mb RAM, this pictures took 3 hours 17 minutes to render and was created with the help of "lots of cups of tea"! Photogenics was used to convert the 24-bit render to JPEG. We'll be sending Glenn £25 for his efforts.



When you buy a new piece of software or hardware, it's not always easy to make it work as it should every time. That's why these pages are here – we've got experts in every field at hand to help you with your problems. And even if you're stuck at the buying stage, because they know the Amiga market inside and out, they can tell you what the best buys are. So let us solve your problems by filling in your details on the form on page 51 and send it in!



Paul Overaa is our Operating Systems programming expert. He has written several books, including: Mastering Amiga Assembler, Mastering Amiga ARexx and Mastering Amiga C. He's also into program design and the music side of the Amiga. This month, Paul previews the programming language Secal (page 35), and helps you out with BASIC's gadtool gadgets.



Gary Whiteley is our expert on video and graphics. He regularly produces work for films and TV. Gary has also written several books on his favourite subjects – among them is Amiga Desktop Video, published by Future Publishing (call ☎ 01225 822511 to order a copy). Gary also regularly reviews new products for Amiga Shopper.



John Kennedy is our hardware and music expert. He has written Supertests and features alike for Amiga Shopper in the past. And in this issue, he starts off a brand new tutorial series on CanDo on page 60 (featured on last month's Coverdisk) to get you creating your own database and he answers your queries on Parnet and Installer scripts on pages 52 and 53.



Larry Hickmott is our DTP and word processing expert. You may have met him at the World of Amiga show. He produces his own DTP magazine called Em and has written several books, including The Wordworth Companion for Digita and Future Publishing's books division. This month Larry also reviews Epson's GT-5000 scanner on page 40.

Amiga answers

No information

I bought a Reno CD-ROM drive, and it came with a SCSI cable ready to plug into the back of my hard drive, a GVP HD8+. This I did and started to try to get it working. The Reno came with no instructions or installation disks so I rang the supplier who were not very helpful. They told me the software I needed was in HDToolBox. Indeed, there is a drawer, but the GVP SCSI program automatically assumes another hard drive is present and wants to format the CD-ROM drive. My CD-ROM drive is set to SCSI address 1.

P. A. Gibson, North Yorkshire.

First of all, check that the CD-ROM drive and hard drive are set to different SCSI addresses. You can pick any address between 0 and 6, although using the lower numbers will speed up your booting times. You shouldn't have to worry about SCSI termination in this relatively simple set-up.

Now for the bad news. The supplier should most certainly have supplied you with instructions and software and it was most remis of them not to do so.

Data stored on a CD-ROM is not stored in normal AmigaDOS format, and so the Amiga cannot read files from it directly. It needs a suitable driver in order to translate the information, and you won't find this anywhere near HDToolBox. One solution is to purchase the OS3.1 upgrade, which apparently included CD-ROM support. However, I suggest you get on the line to your nearest PD library or BBS and download an archive called AmiCDROM. This is an excellent package which provides a new CD-ROM file system for your Amiga, complete with the necessary mountlist to enable you to read from your drive.

If you prefer a commercial package, with a £50 price tag but with some extra features and support, try AsimCDFS which is distributed in the UK by BlitterSoft (☎ 01908 261466). It was reviewed in AS59.

John

Can't Do!

I have found that the CanDo program on AS62's Coverdisks will not install without the program disk. I tried making up a disk, but I found that the message probably means I need the original disk that comes with CanDo. I expect that there is a code on the disk to identify it. I have not found that problem with other versions of CanDo.

V P O'Donnell
Bournemouth

You haven't really given me enough information, but my guess is that you have installed directly to your hard drive and are trying to install the program then from there. I did put information on the disk warning you about doing this, but you may not have read it when you de-archived the Coverdisk.

The Installer script uses an internal command to check for the original CanDo disk (an assign will therefore not fool it). It isn't a code to identify the disk. You can therefore either follow the manual installation instructions contained in the document file or do things the really easy (but a little slower) way. Get three floppy disks and de-archive the three CanDo disks onto them using the Coverdisks own script as this will rename the disks correctly. Then boot your hard drive and insert the first floppy and double click on the Install icon and take it from there.

Dave

Turbo request

I was very keen to try AS61's Coverdisk program TurboPrint 4.1. I followed the instructions to install it onto my hard disk and all seemed OK until I tried to run the program. Requesters stated that it couldn't find certain pieces or directories, so I re-installed it in a different directory, but it still wouldn't work. I suppose it does actually work?

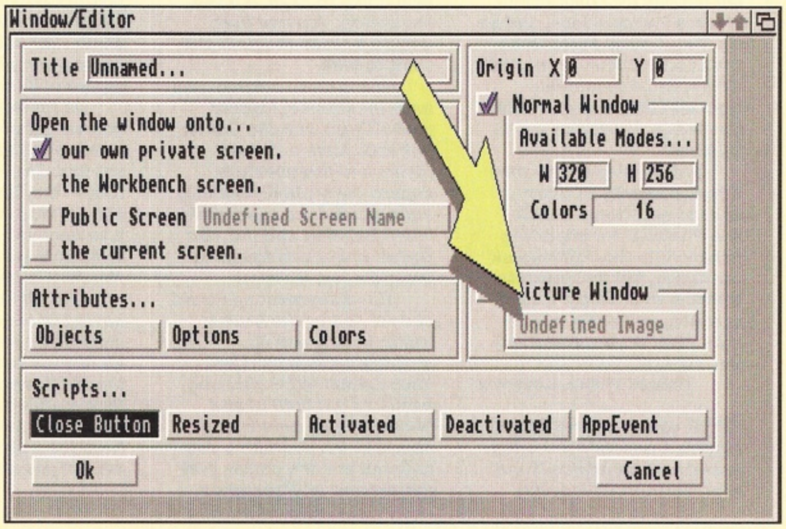
I will try and install it again sometime, but something like this does put me off buying the

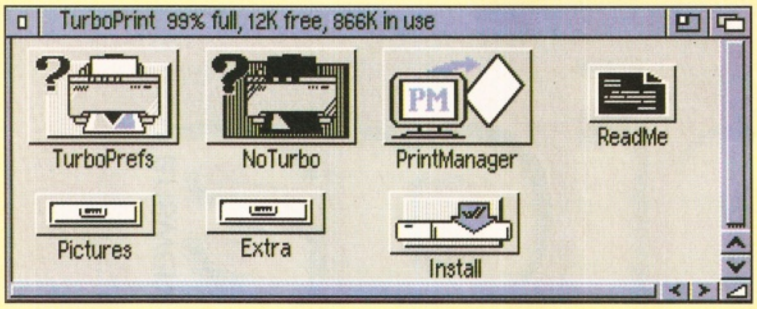
▶ 48

Answers contents

If you're looking for a particular problem, this index should help:

If you're having problems with CanDo which was on AS62's Coverdisk you may have installed it directly to your Amiga's hard drive.





If you've installed TurboPrint from AS61's Coverdisk on to your hard disk, you then need to run the Commodore Installer to get things functioning smoothly.

full program if it is going to cause this much trouble to install. Still, the Wordworth extras were of interest.

D Cull
Bognor Regis

A little more specific information would have helped, but there are two possibilities for where you're going wrong.

First, when you installed TurboPrint directly to your hard drive, did you then run the installer, which sets up all the necessary directories? If you didn't and simply tried to run it, you will encounter problems (the Coverdisk instructions did say you needed to use the Commodore Installer). Simply, double click on the Install icon and it should solve everything.

However, if some of the files are missing, then there must have been a problem de-archiving and you should have got an "Unlzx failed returncode" message. If that's the case, then you have a disk with a read/write error and need to get a replacement from our disk duplicators, whose address can be found on page 9. I still think that our Coverdisks are the easiest ones to install, so long as you read the magazine instructions and any text that I have put on the disks before rushing into installing. Still, glad you liked the Wordworth extras.

Dave

Mini Office Assigns



I have Mini Office by Europress Software and, having installed it to my hard disk (Work:/System:); I have tried in vain to add the assigns to the startup drawer using ED in the Shell. I can't get the assign commands right and still keep getting requests for disks. Please help!

Mark Woodbine
Henlow, Beds

I've not actually seen Mini Office, but Europress Software's technical support team tell me that the assign statement required looks like this:

```
ASSIGN MINIOFFICE: <name of your hard drive partition>:MINIOFFICE
```

Presumably you have installed Mini Office onto the hard drive partition called Work: and it has been placed in a drawer called MiniOffice. In this case the command that needs to be added to your user-startup file is:

```
ASSIGN MINIOFFICE: Work:MINIOFFICE
```

Since the user-startup is in the S: directory of your Workbench, all you need do is open a Shell window and load the user-startup file into ED using:

```
ED S:USER-STARTUP
```

Move to the end of the file, add the new assign, save the file back to disk, and the next time you boot your machine the assign statement should take effect.

There's not that much that could go wrong, but since something has gone amiss so far there are a few things which might be worth mentioning concerning the layout of the assign command line. First, you must have a space between the ASSIGN keyword and MINIOFFICE: Second, that first occurrence of MINIOFFICE: must have a colon at the end of it. Third, there must be a further space after that colon and before the Work:MINIOFFICE term. Note that the hard drive partition name, Work:, must also have a colon after it but that, in the part of the line where this term occurs, you do not put a space after the colon.

Paul

Which Printer?



After reading the reviews in Amiga Shopper, I am still no closer to deciding which printer I should buy for doing colour sleeves for my videos, and so on. The choices seem to be the Epson Colour Stylus, the Canon BJC-610 and the DeskJet 850C. Can you help me decide which one would be best?

I would also like to take this opportunity to ask a second question. I mainly use PhotoCD for importing images into the software on my Amiga, but am now also thinking of adding a flatbed scanner, preferably a SCSI one. What is your advice on this set-up?

Donald Fisher, Coventry

Which colour printer should I buy is a question I'm often asked and my advice is not what you should buy, but more what I would spend my own money on. One of the things I am conscious of is people choosing a printer on my say so and then possibly regretting it later, so I'll tell you what I have now, or would like to have, if given the option. You can then decide if that's the path you want to take.

Of the three printers you have mentioned, I would probably go with the Canon. I already have a Colour Stylus and the quality is superb (very photographic), although it does suffer from slight banding and the new Stylus' are not as tough as the old ones, it seems.

The main reason I would choose to buy the Canon 610 is because of its individual ink cartridges. These seem to be cheaper, easier to get hold of and because each colour is in a separate ink container, you only replace the colour that you run out of. Recently, I ran out of black ink on my Stylus printer and it was quite difficult to get replacement cartridges while ones for the Canon seemed to be everywhere. I also produced some posters recently for my stand at The World of Amiga show, and often ran out of one colour ink, but had to replace all three.

As for the scanners, I haven't yet used a SCSI scanner with the Amiga that worked. The only one I have tried – the Epson GT-5000 – did not work with ImageFX 2.1a because of the Squirrel interface, but I am told the Hewlett-Packard models do. With the price of these having come down as well, maybe you should be looking at something like the HP ScanJet 4P. I hope to look at this model myself quite soon and maybe I can twist the editor's arm to let me tell you all about it.

Larry

Memory Jumper



I have an Amiga 1500 with a Microbotics 8-UP! RAM board, and it is fitted with 2Mb of RAM. A few months ago I purchased Final Writer 4 and a Power Computing hand scanner and now I need to fit at least an extra 2Mb of RAM.

But here is my problem: when I purchased the Amiga 1500 over four years ago I had the 8-UP! card fitted at the shop before I collected the Amiga. Now I've discovered that I didn't get a user's manual, so I don't know which jumpers to change to reconfigure my board from 2Mb of RAM (as it is now) so I can run it instead with either 4, 6 or 8Mb of RAM on-board.

When I telephoned the shop they said that they couldn't help me as Microbotics went bump a while ago and that they didn't have a user manual in their service department to which they could refer. However, reading in my library of Amiga Shopper back issues I found that AS54 contained a feature called 'Amigas Make It Possible' in which Gary Whiteley explains that he uses an A2000 also fitted with the same RAM card. Is there any chance that Gary could tell me either what his jumpers are set at to configure his board to 6Mb or, if he still has his user manual, what to set the jumpers to for 4, 6 and 8Mb of extra RAM?

Steve Kay, Stockport.

Glad to be of help, Steve. Referring to my 8-UP! 'user manual', which is actually just a double-sided printed sheet of A4, the following information should sort you out.

Installing the RAM. *When installing RAM (1Mb x 1 – 150ns or faster) you'll need 16 chips for each 2Mb. These have to be installed into the sockets in the following order – bank A1 (which you should already have full), A2, Z3 and then Z4. So for a total of 4Mb you need to add 16 more chips into bank A2's rows of 8 horizontal and 8 vertical sockets, making sure that the 'notch' in the chips goes to the left in the horizontal sockets and upwards in the vertical sockets. For 6Mb add 16 more chips into the next two rows down and for 8Mb simply fill the remaining space on the card.*

Setting the jumpers. *Assuming that you have installed the memory chips in the correct order (A1, A2, Z3, Z4) you'll need to have the following configurations of jumpers for the*

various RAM configurations: (note that for simplicity I've referred to installed jumper blocks as 'C' and open jumpers as 'O'). Jumper 7 is the uppermost of the jumpers on the card, jumper 1 is the lowest.

2Mb: 7O, all others closed.
4Mb: 7O, 6O, all others closed.
6Mb: 4C, 2C, 1C, all others open.
8Mb: 2C, 1C, all others open.

For your information, jumpers 1 and 2 enable autoconfiguration of the memory and are usually always left in place.

Gary

Zip up!

Software

I have an A500 with Workbench 1.3. I know it's old, but it's what I've got. I'm having trouble unzipping programs that I download. Is there a program designed for this purpose on the Amiga?

Tape
E-Mail

A couple of points seem to raise themselves. I'm assuming that you mean specifically zip archives, not just archives in general. You need the archiver relating to whichever type of archive it is to de-archive it, eg. zip, lha, dms, and so on.

Zip archives are not widely used on the Amiga as they are a PC format, so I'm assuming that for some reason you want to get into PC archives. If this is because you want to emulate a PC and use some software (technically possible on a 1.3, but slow), then you could just use the unzip command from the PC shareware scene under the emulator to de-archive. If, however, you want to unzip a file because it's got some pictures in it (or whatever) that you want to use on the Amiga and want nothing to do with PCs, you simply need the Zip command that can be found on most BBSs or on Aminet. In the util/arc directory of Aminet there are at least three options: Unzip512x.lha, PKAZip.lha and zip2olx.lha. They may not all work on 1.3 machines, but I suspect at least one does.

Dave

Missing volumes

Coding

I have rather stupidly corrupted the Startup Sequence of my hard disk by loading Octamed5 and saying 'yes' to all the questions asked by the loader. I also lost about 25 per cent of the memory and the mouse pointer changed to display the RBF Loader.

A friend gave me the listing for Startup and showed me how to edit it. I got my RAM and Mousepointer back, but I am still left with a list of missing volumes which are requested each time I boot. They are as follows:

```
Insert volume Assign>NIL
Insert volume ENV
Insert volume Run>NIL
Insert volume Mount>NIL
Insert volume EndCli>NIL
```

Can you help? I've enclosed the print out of the startup sequence as it was given to me.

Arthur McRae
Newcastle Upon Tyne

No problems, Arthur. But first of all, if you ever delete your startup-sequence again, remember there is a perfectly good one sitting in the S: directory of your original Workbench floppy disk. It's also a lot more standard than the one you sent me, which doesn't include any support for ENVARC (where some programs store their configuration settings).

To the problem in hand. As you retyped the startup sequence from the printout you were given, you unfortunately left out the space between the Assign statement and the redirection symbol (the greater than sign). You entered:

```
Assign>nil: t: ram:t
```

instead of

```
Assign >nil: t: ram:t
```

This caused the poor Amiga to try and find a device called 'Assign>nil:' which it couldn't. The Assign statement corrects a shortcut path, and the '>nil:' causes the output not to be displayed on-screen.

John

Multi-coloured icons

General

I have an Amiga 1200 with Workbench 3.0. When I go into IconEdit there are eight colours to design an icon with, but when I try to save a disk icon the icon turns black and will not accept the colours I choose.

J.C. Lammin
Dagenham, Essex

I've never had any problems with IconEdit, but have occasionally heard of this sort of thing happening. I have no idea why it occurs, but I've been told that sometimes it seems to have been connected with the use of wrong file names, or with some other error during use. As far as the loading and saving of icons is concerned there's not really that much that can go wrong. IconEdit has AppWindows which means you can select an icon, and while holding down the left mouse button, drag it into the main IconEdit Window and that icon will be loaded into IconEdit.

When loading existing icons like this you can edit them to multicolour form and then save them easily, using the IconEdit Project menu's Save option.

When designing a disk icon from scratch the only thing you need to remember is that you should choose the 'Save As' menu option, use the Volumes gadget in the requester that appears to select the disk you wish to have a new icon for, and then enter Disk or Disk.info as the file name.

Paul

HiSoft BASIC

Software

I am not very impressed with your coverdisk version of HiSoft BASIC. Recently, I ran an interpreted GFA BASIC 3.5 program which executed in 4.04 minutes. Moving over to compiled HiSoft BASIC the program was accepted without modification – but the compiled version took as much as 35 minutes to execute. It was a pure integer program – no floating point operations and both programs used 'DEFINT a-z ' so what gives?

GFA 3.5 is optimised for integer operations. Is this the problem or is my copy of HiSoft BASIC corrupt in some way? If not, why should I abandon an old friend for an upstart that is more than twice as slow!

I've been told that HiSoft BASIC can cope with many different dialects. Do you know if it can accept ABASIC programs? Certainly GFA 3.5 couldn't do this. If it does, could I import ABASIC programs into HiSoft BASIC and then save them out to GFA 3.5? I've enclosed a listing for you to look at.

John W. Borland
Westminster

▶ 50

PageStream clips

Software

I have recently started to use PageStream 2.2, but I have noticed a number of problems when I'm using ProClips from ProDraw 3. These clips seem to work fine in PageSetter 3, but not in PageStream. The colours come out wrong, the shading is less than perfect and I just can't seem to pin down the problem. IFF-ILBMs are fine from PageStream. Any ideas?
Julia Woolstone, Inverness

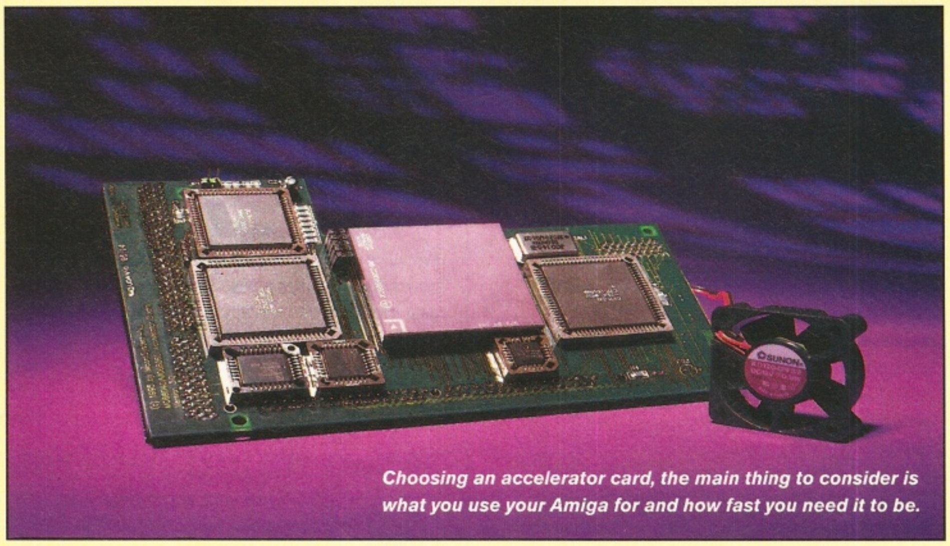
As the cliche goes, I have some good news and some bad news. First the bad news. As far as I know, there is no solution to your problems with ProClips in PageStream. As long as you have the latest filters (version 2.1.10), all you can do is cross your fingers or use PageSetter 3.



PageStream has difficulties handling ProClips from ProDraw because the format has never been release by its makers.

The good news is that I know why this is happening. The format for the ProClip has never been released by Gold Disk. Because of this, Soft Logik, the makers of PageStream, have had to reverse engineer the ProDraw filter and that is why the drawings work fine in PageSetter 3, a program published by Gold Disk (the creators of the clip format) and do not work a 100 per cent in PageStream.

Larry



Choosing an accelerator card, the main thing to consider is what you use your Amiga for and how fast you need it to be.

HiSoft BASIC is a Microsoft BASIC style language. It isn't able to cope with other dialects in the 'conversion sense' that you mean – it's just that Microsoft BASIC became a sort of defacto standard for BASIC and other BASIC interpreters and compilers adopted a similar syntax.

This means that programs written in these other dialects will be broadly similar to HiSoft BASIC and many programs will indeed run unchanged. You can't however import programs in one dialect and save them in another. No BASIC will do this for you!

I don't know anything about ABASIC, but as you will now realise, providing it is a Microsoft flavoured BASIC it shouldn't be to hard to get ABASIC programs running under HiSoft BASIC.

The listing you provided is far from clear, but the fact that it contains a PROCEDURE terminating with a RETURN statement suggests that it is a GFA BASIC program. This couldn't possibly have even compiled properly, let alone be run, as a HiSoft BASIC program without you having made some changes.

Without details of the exact code you were comparing I can't comment on the timing differences that you mention. The speed of HiSoft BASIC programs are affected by such things as the way parameters are passed to sub programs. Passing parameters by value, for example, can easily double the execution time of a program – but I would need to see your HiSoft BASIC version of the code before offering advice on what you would need to do to speed it up!

Paul

What Accelerator?

I have an A1200 and I am planning on buying an accelerator card, but I need some advice. I was considering the Viper 50MHz from Power Computing, but then the Falcon came along. What is the difference? Both run at 50MHz and both can have up to 128Mb of RAM attached, but the Falcon costs a lot more money.

I do a lot of raytracing, so I need the speed, and the memory. It says in the adverts that the cards can hold up to 128Mb, but are they sold with 4, 8 or 16Mb RAM? Can I just buy more SIMMS and plug in? Does the Falcon come with an FPU, or must I buy one separately?

Terje Karlsen
Norway

The main difference between the Viper and the Falcon is that the Viper is 68030 based, while the Falcon carries a 68040 chip. In practice, this means that the Falcon will be vastly quicker than the Viper, due to the markedly faster 040 chip. Also, with the Falcon's 040 chip, the FPU is built-in, while with the Viper you'll need to purchase the FPU as an extra.

Actually, the Viper runs at either 28MHz or 33MHz (though it is over-clocked to 42MHz), depending on the 030 chip used. It is only the FPU which can run up to 50MHz (once again this depends on the variant of the FPU chip being used).

I'm not absolutely sure about the memory configurations available. Your best bet would be to contact Power Computing directly and ask them what is available for the Falcon, though they advertise 2, 4 and 8Mb configurations for the Viper, so a good guess would be that the same are available for the Falcon.

Although the Falcon is more expensive than the Viper, it will run considerably faster, which is very important to you because you do a lot of raytracing on your Amiga. You will also be able to use the FPU versions of your 3D software (as you will if you add an FPU to a Viper) which will further increase your Amiga's rendering speed, since raytracing requires a lot of maths work and an FPU-equipped accelerator will handle this much faster than a non-FPU accelerator.

To confuse you further, 060 cards are now becoming available for the A1200, including the Blizzard 1260 from Gordon Harwoods. In John Kennedy's review in AS60, the 1260 massively outperformed all standard Amigas (including the A4000/040) and was a close third behind A4000/Warp Engine and A4000/CyberStorm combinations. So if you really want rendering speed, maybe you should save up for just a little longer and get yourself an 060 accelerator.

Gary

Equation solver

Having read Paul's answer concerning the simultaneous equation solver in AS61, I simply had to react. The program is buggy and incredibly cumbersome. To start off, why place those equ's in front of every variable? This makes the program seem crippled. By removing these, the program will be a lot more comfortable looking and it will also reduce the size of the file. – not to mentioned the headaches people get writing all those equ's. I do not know what the method is called in English, but in Danish it is called the Determinant method.

Also on pages 52 and 53 you claim you are using Dice 3.1. Do you mean 3.01 or has an update been released? I bought Dice 3.01 from Amiga Shopper's mail order service, but did not get a registration card. If you have time to comment on this, please do so as I am eager to get as much update information about Dice as I can. Like Andrew Smith, I too think it does not feel like a finished product.

By the way, any chance of some object oriented programming tutorials (Toby Simpson has promised these lots of times but nothing ever materialised)?

Ole Friisvia
amshopper@cix.compulink.co.uk

I think that what you are trying to say is that the program is poor and has many short-comings- and you're absolutely right. But I didn't write the program in the first place nor, in answering the original question, did I have any intention of re-writing the code – all I did was make a few corrections to sort out what were obvious mistakes and then run one or two test cases.

In providing the modified version I certainly wasn't condoning either the way the program had been written or the method being used. As I mentioned in AS61, I hadn't seen the Toby Simpson article and wasn't sure either of the real purpose of the original code, or even whether the code that James Gallagher had provided was a true likeness of whatever had been discussed in Toby's article. This being so it didn't seem wise to comment too much on the code, the method or the logical flaws.

Since, however, I now feel a strange urge to disassociate myself from the code and its ideas, I'll give you my honest opinion: the underlying method is crap, plain and simple. In the real world no one in their right mind would use it to solve sets of simultaneous equations either in ARexx or any other language.

If, incidentally, you'd like to see how I tackle the solution of simultaneous equations using ARexx then keep a look out for our sister mag Amiga Format. Coming up soon you'll find an article that deals with a utility which solves simultaneous equations using a method known as Gaussian elimination with partial pivoting. This is a method used for serious numerical analysis applications and trust me – with my code you won't see an 'equX' variable in sight!

Having pleaded not guilty to the above I suppose I had better come clean about a slip regarding the Dice version number. The About_Dice readme file that comes with the

Dice package clearly states $VER About_Dice 3.1 (2.22.94), but on further checking this is an error – the supplied software is version 3.01.

On your last point, we've only had a few requests at Shopper for OOPS programming help, but it's something that may be considered for future issues once we become convinced that it interests a sufficient number of readers.

Paul

Archives made easy

Software

I hate giving my system over to a Coverdisk, so I de-archive the disks manually. It is a little awkward, though, as there is no way of knowing exactly what is in each archive. Could you include a text file on the disks to indicate what is in each archive? I don't think I'm alone in asking for this.

Why not have the Answers submission form on the Coverdisk to save us having to cut up the mag? How many readers have a photocopier?

Steve Graham
Australia

As I'm sure you've noticed, the time it takes to compile our Coverdisks is considerable already. Contrary to rumours, I do only have one set of hands and but a single brain. I've considered compiling a list for those users who want to de-archive manually, but haven't had time to implement it.

What I could do is include a viewing text file compiled using the lzx 'v' command, which would give an entire list of each archive's contents. The trouble with that is that it will take up a lot of space for a single text file and I'd probably end up supplying it as an archive, so that you just needed to de-archive that file to see what is contained in all the others. Fair compromise? I'll even do it so that you can just click on an icon to view it (but then again, that's not for you anyway).

If this doesn't sound like a solution, why don't you just look into the archives yourself? Use: lzx v AS_0796_1:archives/as1.lzx. That is what you seem to be asking for – a way of looking into archives. Maybe you just didn't know about this command option? Including the form on the disk also sounds like a good idea and I'll do that as soon as I can. Perhaps readers could then supply their questions on disk to save me typing them back in? Please?

Dave

Streaky Textures

Software

I was wondering how you make the diffuse textures that were used in the Lightwave Pod tutorial some issues ago. All the space textures in Lightwave have like a leak, streak looking surface and I was wondering if you do this by hand or is there an image filter in an image processor (Amiga/PC) which can do this for you?

Gino Dammers
Netherlands (via e-mail)

Sorry Gino, it's all done by hand with a good paint program.

Gary

Upgrades ready?

Software

Could you tell me whether PageStream 3 is finished yet? I have had it for more than a year now and have hardly used it except for the odd occasion when it first came out. Recently I had to do a newsletter for the Church and tried PageStream 3 again, but gave up after a few hours of going around in circles. I know there were supposed to be upgrades, but I haven't seen these advertised anywhere and was wondering if I should be sent these by Soft-Logik. What can you tell me on this?

Allan Richards, Maidstone, Kent

PageStream 3 is not finished. The latest upgrade is 3.0i and I expect the next one will be 3.1 and you will (if you are registered) be sent that automatically by Soft-Logik when it's available, probably in the latter part of this year.

As for the upgrades, these are quite readily available from many sources. From your letter, you say you do not have a modem, so you will have to rely either on PD libraries, on an Aminet CD if you have a CD drive or you can contact me (☎ 01908 370230) and I'll tell you how you can get them from my company.

Larry

Fill in and get answers to your questions — AS63

If you send in a question for the Amiga Answers experts, please fill in and include the form below (or a photocopy if you don't want to cut up your magazine). If you have several questions in different fields that should be addressed to more than one of our experts, please send in your queries on separate forms.

Send your form and question to: Amiga Answers, Amiga Shopper, 30 Monmouth Street, Bath, Avon BA1 2BW.

Name: ____________

Address: ____________

____

____________ **Post code** ____________

Your machine:

☐ **A500** ☐ **A500 Plus** ☐ **A600** ☐ **A1000**
☐ **A1200** ☐ **A1500** ☐ **A2000** ☐ **A3000**
☐ **A4000**

Approximate age of machine: ____________

Kickstart version (displayed at the "insert Workbench" prompt)

☐ **1.2** ☐ **1.3** ☐ **2.x** ☐ **3.x**

Workbench revision (written on the Workbench disk)

☐ **1.2** ☐ **1.3** ☐ **1.3.2** ☐ **2.04/2.05**
☐ **2.1** ☐ **3.0**

PCB revision (if known). Do not take your machine apart just to look for this! ____________

Total memory fitted (see AVAIL in Shell for Workbench 1.3) ______

Chip memory available (see AVAIL in Shell) ____________

Agnus chip (if known) ____________

Extra drive #1 (3.5in/5.25in) as DF : Manufacturer ____________

Extra drive #2 (3.5in/5.25in) as DF : Manufacturer ____________

Hard disk: ____________ **Mb as DH** ____________ **:**

Manufacturer ____________

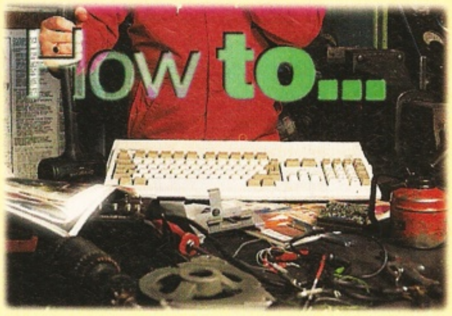
Extra RAM fitted – type, size in Mb and manufacturer ____________

Please indicate details of any other hardware which could help us to answer your question:

____

Now, use this space to describe your problem, including as much relevant information as possible. Please continue on a separate sheet if necessary.

____



Network using Parnet

Get your Amigas to work together with this cheap networking solution.

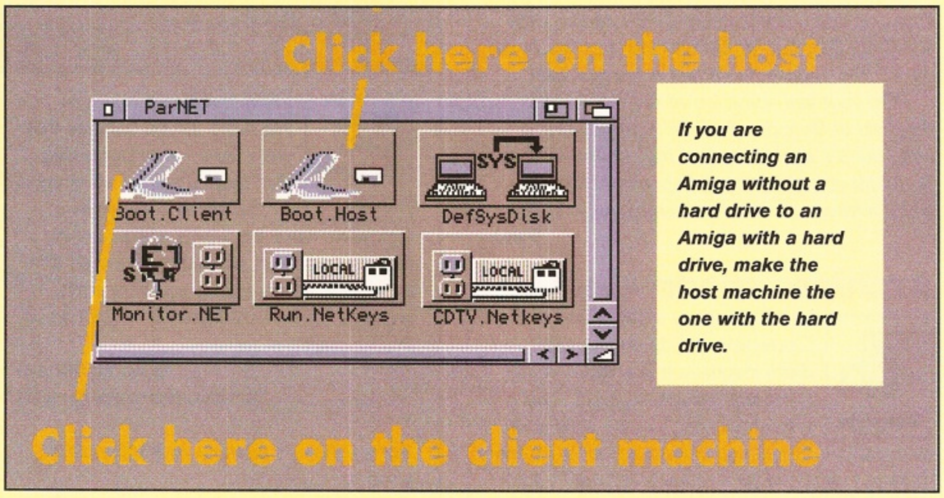
Parnet is the cheapest and simplest way to properly network two Amigas together. Parnet is extremely useful if you find yourself copying a lot of floppies between two Amiga computers. You can use Parnet to connect an Amiga to a CDTV and make use of the CDTV's single-speed CD-ROM drive. Or you can connect an A500 to an A1200 fitted with a hard drive and make it easier and faster to use the A1200.

When Parnet is running, all the devices on the remote machine are accessible at speeds of up to 30K/second. This includes floppy drives, hard drives and CD-ROM drives. You can even copy files to and from the RAM disk on the remote computer, and use this to expand the amount of memory in an Amiga.

CD32 systems can also be connected, although these require particular cables and a suitable CD-ROM to boot from: if you have a CD32 it is much easier to buy a ready-made kit from a dealer.

Free for all

The first step in getting Parnet running is to obtain the latest version of the software. You can get it from Aminet, a BBS or your local PD library. There are many versions available, but by far the simplest to use is a version called Parbench as this includes easy to follow installation instructions. The filename to look out for is 'Parbench31.lha'. Read the instructions carefully before you begin.

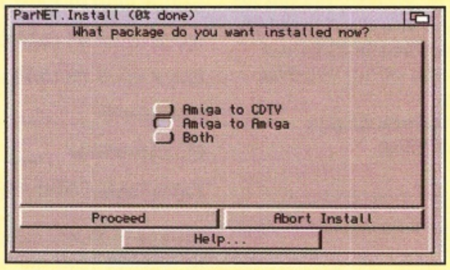


If you are connecting an Amiga without a hard drive to an Amiga with a hard drive, make the host machine the one with the hard drive.

You will need a special cable to connect the Amigas together, and the instructions will explain how to build one. Most problems with Parnet can be traced to mistakes in making the cable, so if you aren't happy about doing it yourself ask someone who is qualified in such things. You cannot use an off-the-shelf parallel cable – if you use a cable which hasn't been designed for use with Parnet, you will damage one or more of the Amigas.

Which Amigas?

Switch off the Amigas, connect the cable to both machines and boot Workbench. Then insert the Parbench disk and click on the Install icon and follow the instructions on each machine in turn. You will be asked if you want to install the Amiga-CDTV version or an Amiga-Amiga version. You will need an external disk drive if you intend to use the CDTV, although you can do without a keyboard.



The "Parbench" version of Parnet comes with an easy to use install routine.

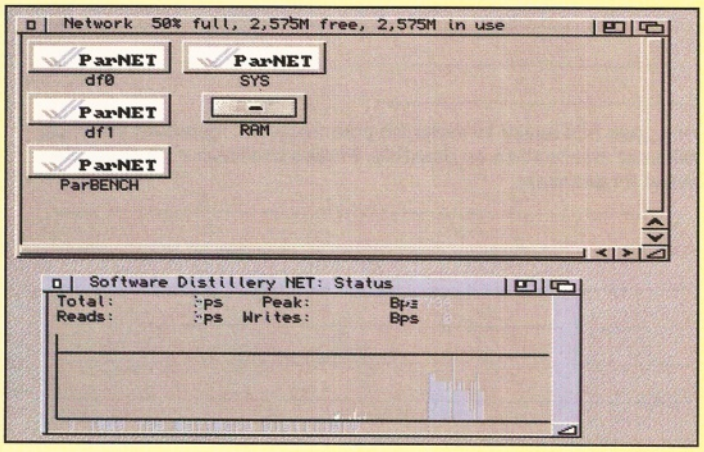
After installation, you will need to start the networking system running. One Amiga will be the host (usually the one with the hard drives) and the other will be the client. Click the required icon on each and watch as the various drivers are loaded.

Now an extra icon called "Network" should appear on the Workbench. Inside this drawer you will see the remote devices. Or rather, you should see them. The devices will be hidden until they are accessed. For example, I have two Amigas networked. One has a CD-ROM drive called 'cd0:'. On the other Amiga, I need to open a Shell and enter 'cd net:cd0' in order for the CD-ROM icon to appear on the Workbench.

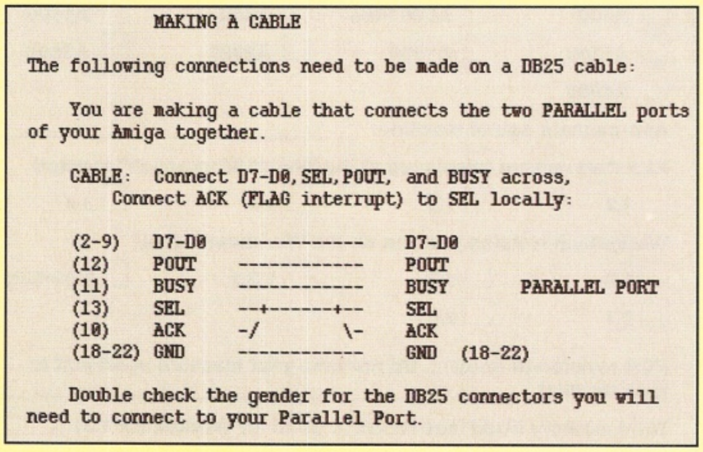
For a fully-working system you need to read the documents to see how to write a small file which automatically adds all the drives on the remote machine, and how to add icons to the remote devices.

There are many utilities written for Parnet, including monitoring software and programs to allow you to pretend you are using the keyboard and mouse of the remote machine.

Parnet makes it easy to copy files between Amigas. It's faster than a serial link and more convenient because you can deal with icons and directories rather than individual files.



Here's a working system, with the drives of the remote machine showing up in a drawer called "Network". Note the utility which displays the link working.



```
MAKING A CABLE

The following connections need to be made on a DB25 cable:

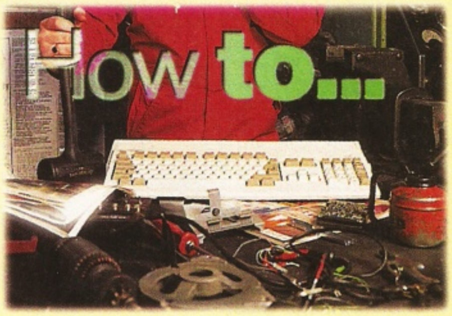
   You are making a cable that connects the two PARALLEL ports
of your Amiga together.

   CABLE:  Connect D7-D0,SEL,POUT, and BUSY across,
       Connect ACK (FLAG interrupt) to SEL locally:

   (2-9)   D7-D0    ------------   D7-D0
   (12)    POUT     ------------   POUT
   (11)    BUSY     ------------   BUSY       PARALLEL PORT
   (13)    SEL      --+------+--   SEL
   (10)    ACK      -/        \-   ACK
   (18-22) GND      ------------   GND  (18-22)

   Double check the gender for the DB25 connectors you will
need to connect to your Parallel Port.
```

Take time to get the cable right, and keep it as short as possible. Over several metres and it won't be very reliable.



Write Installer scripts

It's the standard Installer designed to make life easier, but how do you write for it?

The Installer system was created to provide a consistent and easy to use way of copying software onto an Amiga system (almost always a hard drive system). The Installer was designed to be used by three levels of user (novice, average, expert) and could offer different options and degrees of support to each.

The Installer handles making new directories, copying files, updating libraries and so on – all with on-line help and an indication as to how long the process is going to take by means of 'percentage complete' options.

Installer is script driven, which means you create a text file for the Installer to use. The script has an associated Project icon, which calls the Installer program that first compiles and then executes the commands. The legal bumph which comes with the Installer implies that anyone can use it. Software authors are encouraged to write Installer scripts because it makes things much easier for the user.

The first thing to do when writing Install scripts is to get the official documentation. You'll find it on Aminet (on the FTP site or the CD-ROM collections) in the util/misc drawer, and the current name is 'installer_1.25.lzh'. A PD library should be able to supply it, and you should also check your local BBS. This pack includes the latest version of the Installer program, as well as comprehensive instructions.

The script which the Installer uses is based on a language called LISP, which means that you will use lots of brackets. It's quite a powerful implementation and can be used to write programs other than Install routines if you like. The best way to understand how Installer works is to look at the example file supplied and adapt it to suit your needs. You should also look at the files supplied with other software packages.

A quick look through the official documentation will confirm the complexity of Installer, and that might put you off! It's actually not hard to create a useful script once you get over the fear of all those brackets. First, you create a text file with a Project icon. Make the associated tool the Installer program (which you may find is already on your system – try typing it at the Shell prompt – or if not, it can be copied from the disks of any program which makes use of Installer). It is a good idea to copy the icon from an existing project to maintain the tool types and the stack size of 20000. You can also pinch the graphic for your icon in this way. There should also be a tool called APPNAME which is set to the name of your application.

Now you can start creating your script. Start off with a welcome message by including something like this as the first line in your script:

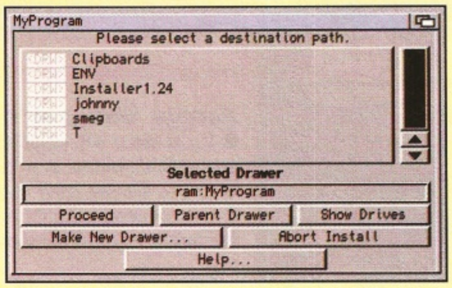
```
(welcome "Welcome to the Installation
Process.")
```

The next stage is usually setting the directory. Installer will try for WORK: to start with, but this can be changed to any device as you can see in this example (note the symmetrical increments are created using tabs):

```
(user 2)

(set instdir
    (askdir
        (prompt "Please select a
destination path.")
        (help @askdir-help)
        (default "ram:Program")
        (newpath)
        (disk)
    )
)
```

You'll see a link to something called `@askdir-help`. This is a built-in help file on creating a directory. You can add your own help files if you wish. The (user 2) is important to set the 'idiot-level' to something higher than novice or you won't see anything following it. Remember not to make the Installer script icon the same name as the drawer you are trying to create to copy files into. Name the script something like 'MyProgram_Installer' to avoid confusion. Often we'll want to check if there is a suitable directory available, and this can be done like so:



Using the correct script you can get Installer to check source and destination directories.

```
(if ( = (exists instdir (noreq)) 0)
            (makedir instdir
                    (prompt
("Creating directory \"%s\"" instdir))
                    (help
@makedir-help)
                    (infos)
                    (confirm)
            )
)
(message "\n Now ready to start
installing")
```

This lump of code will make the directory the user has defined if it isn't present. See, I told you Installer was smart!

Now we can set up the part of the script which actually copies the files. We have to set-up the Source of the data (where it is coming from) and the Destination. The Source is usually a floppy disk, and so the script looks like this:

```
    (set Source-Floppy "disk1")
    (set Dest-Drawer (cat instdir "/"
Source-Floppy))
    (set title ("\nPlease enter\n\n
Disk1\n\n in any drive."))
(askdisk
        (prompt title)
        (help @askdisk-help)
        (dest Source-Floppy)
    )
```

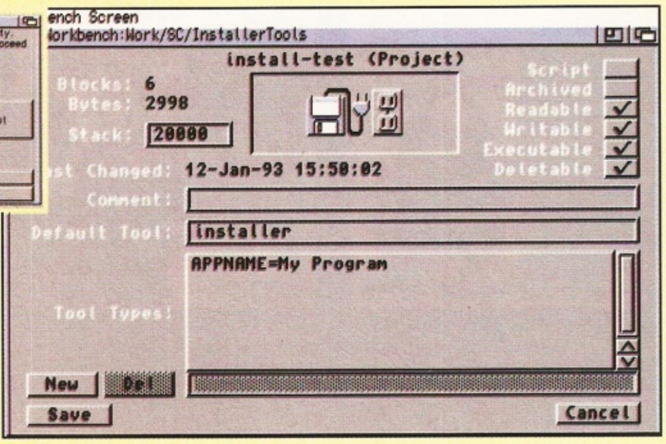
Here I'm assuming the floppy disk is called 'Disk1'. The destination directory is something we have already set up in the previous code.

```
(copyfiles
        (prompt "Copying files...")
        (help @copyfiles-help)
        (source (cat Source-Floppy ":"))
        (dest Dest-Drawer)
        (pattern "#?.iff")
    )
```

This code will copy all the files ending in .iff from the source floppy to the destination drawer on the hard drive. You should adapt it to copy the files you need for your program.

And that's all there is to it! With longer scripts, you can copy files from multiple floppies to multiple directories, or even deal with files which have been archived. Check out the official documentation for details and remember to look at other install scripts whenever you can. Remember also that Installer compiles the scripts before it uses them, and so spots errors before they happen. A common error is 'Unable to compile script. Error: symbol name not valid on line xxx'. This is often caused when you leave out a bracket, so keep track of them!





Above: ***The Installer as it looks when you start up an installation script. Note the three levels.***

Right: ***The icon for the script has the Installer as its tool and the program name in the tooltypes.***

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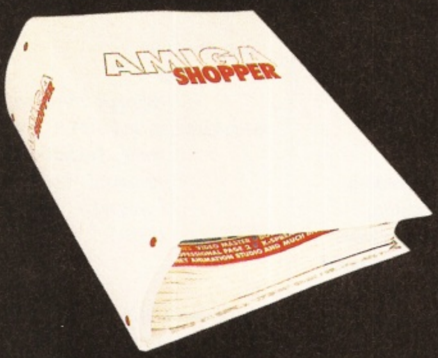
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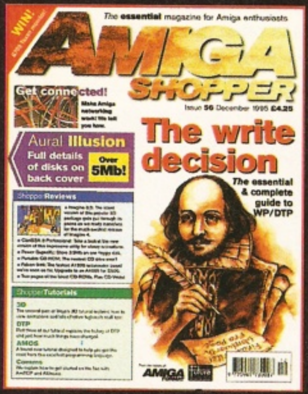
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Choice Domain

Our new man on the PD front, ***Steve Liddle*** *brings you all that's brilliant and all that's bad in Public Domain programs. From music and guitars to magazines and football – there's something for everyone.*

There's some gems for you to choose from this month, so many programs of such a high quality that there's no less than eight star buys to get your hands on. And here they all are:

Starblank

This is a themed disk from Roberta Smith PD and contains 13 different screen blankers. A screen blanker is ideal for people who leave their computer and monitor switched on and unattended for long periods of time. If you do this, parts of the screen may become darkened and burnt because there is no screen activity going on. A blanker's job is to detect when the mouse and keyboard have been inactive for a user-definable period and kick in with a screen display of some sort.

There are various types of blanker on this disk that will give you a simple, but effective, image – starfields to fractal displays, fireworks, balls and flying toasters – you get the picture. If you leave your Amiga turned on and not used for long periods, then this could be a useful disk, but otherwise it only has novelty or posing value, even if it's a [retty good pose.

Verdict: 77%



A 3D picture from Steropticon II. You will need a pair of those dodgy 3D glasses to view this picture properly, but the 3D effect is superb.

Stereopticon II

Stereopticon claims to transform normal IFF pictures into true stereoscopic (3D to you and me) pictures, viewable through simple home-made red/blue glasses. And I can confirm its claims are true. The 3D pictures you can create are stunning, you really do get an excellent 3D effect.

The program comes with an good on-line-help system where all you questions are answered. There is even help on creating 3D animations and AMOS games in 3D with source included – most interesting.

The whole package is put together with a lot of care, precision and attention to detail. This new version has many new features over the older version which was rated 92% in AS, these include an image converter, batch conversion mode, a 'double' button, which doubles the depth of the stereoscopic images and an Animation Script Mode among others.

The on-disk documentation explains how you can make your own 3D glasses easily and is typical of the professional way this disk and program has been put together, if only all Shareware was this good. The version under review is what the author calls 'CodeWare', so you need to buy the code from the programmer to access the complete program. The demo version prints the word 'Demo' all over your pictures so if you want any serious use out of the program you will have to register with the author, Ernest Ruckle, by sending him US$30.

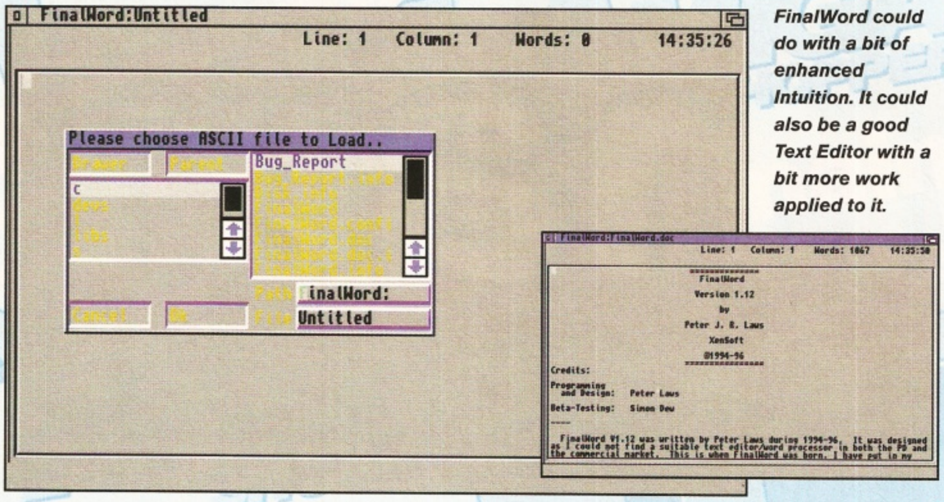
Verdict: 95% **Star buy**

Dark Fiction #1

This disk isn't so much a disk magazine – it's more a book on a disk. It contains lots of horror

Who, what, where, when, why, how...

Product	No of disks	Type of product	Price	Supplier	Contact	Verdict	Page
Final Word	one	Utility	£2.00	Peter Lawes	0181-2928877	70%	56
Vark #12	one	Compilation	90p	Roberta Smith PD	0181-45516206	90%	56
Final Frontier	three	Disk Mag	£4.50	SeaSoft Computing	01903-850378	98%	59
BUG	one	Disk Mag	£3.50	SeaSoft Computing	01903-850378	91%	59
NB.Amos	two	Disk Mag	£4.50	SeaSoft Computing	01903-850378	49%	59
MidiCraft #9	one	Disk Mag	£2.50	Seasoft Computing	01903-850378	91%	59
Football Icons	one	Icon collection	£1.00	Pixel Digital PD	0151-2594017	75%	56
Steropticon II	one	Utility	N/A	All good PD suppliers		95%	55
MSR Music Vol 1	one	Music compilation	£2.95	5th Dimension	01709-888127	80%	58
MagicSelector	one	Utility	£1.50	KEW=II	0181-6571617	89%	56
WordPuzzle Pro	two	Utilit	£4.99	F1 Licenceware	01392-493580	92%	59
Pro Organiser	one	Application	See page 12	Pro Soft	0973-702718	96%	57
Let's Learn II	one	Educational	£3.50	Horizon@SeaSoft	01903-850378	74%	58
Starblank	one	Screen blankers	90p	Roberta Smith PD	0181-45516206	77%	55
Dark Fiction #1	one	Horror mag	90p	Roberta Smith PD	0181-45516206	87%	55
Amiga Guitars II	one	Soundtracker modules	£1.50	Pixel Digital PD	0151-2594017	92%	58
TI Volume 13	one	Med users mag	£2.50	Seasoft Computing	01903-850378	88%	59



FinalWord could do with a bit of enhanced Intuition. It could also be a good Text Editor with a bit more work applied to it.

stories and poems by up-and-coming writers. Some are very entertaining and can give you a bit of a shiver up the spine if you get immersed.

This disk is a continuation of the F1 Licenceware title 'Magnetic Fiction' which had the same interface, but looked a lot better. All the stories on here are new and offer you good value for money, especially if reading stories off your computer screen is your bag. Not everyone's cup of tea, but worth checking out.

Verdict: 87%

Final Word V1.12

Final Word is a Text Editor similar in many ways to the excellent Edword Pro and Cygnus Ed programs. The version sent for review is a Shareware demo of the program and has lots of crippled features and even an annoying startup window that forces you wait 10 seconds before being able to use the program. It's all a bit counter-productive and over the top.

Still, the idea is that you try out the software and if you like it send £12.50 to the author for a 'keyfile'. When you install this keyfile on your demo version it unlocks all the crippled features including the intro screen. Final Word runs OK from Workbench and multitasks properly, which is essential for this type of software. And, of course, it's hard disk installable with an easy to use installer provided.

The first thing most users will do with Final Word is to load its doc file into the editor to see how it performs. The first thing that hit me was the non-standard file selector, what's wrong with the ASL requester? The doc file loads in quite fast and there is a short pause while the document is formatted and displayed. This short pause (on an accelerated A1200) prompted me to see how Final Word handled large files – not so good was the result.

Files of over 100K were quite sluggish to edit and if you want to go to any other part of the document other than the top or the bottom you have a long wait on your hands while you slowly scroll up or down the text. There is a 'Jump to line' feature, but a click and drag bar down the side of the screen would be considerably more useful.

However, Final Word has its good points. A few of its features cannot found in some other text editors. For example, it can sort blocks of text alphabetically, has a spelling checker, though only a paltry 1,200 words according to the doc file, a user dictionary, on screen stats and you can assign functions to keys. As far as I am aware, the only feature there that my Text Editors do not have is a spelling checker and 1,200 words is of no use to anyone.

The author claims to have worked on Final Word for almost three years. Despite my misgivings I think it's shaping up very well. Problems with the speed of the program need to be sorted and a more standard use of Intuition would also improve the program.

All said and done I like Final Word, but I can't see even the full version coming close to CED or Edword.

Verdict: 70%

PD submissions

If you have some exciting PD disks that you would like to be considered for review in Domain Choice, send them in to Amiga Shopper, Future Publishing, 30 Monmouth Street, Bath BA1 2BW, clearly marked as a PD submission. We welcome any type of disk, except games.

If you are a PD house, make sure you include all the information necessary, such as how to contact you, how much the disks cost and how people can pay. If you are the author of the program, state where people can get your program from, and whether you would like us to consider it for inclusion on a future ShopperChoice Coverdisk.

Information about new PD houses or PD authors is accepted for inclusion in the PD directory (see box on page 73 for further details).

The World Of Football Icons

This disk contains hundreds and hundreds of Workbench AGA icons representing virtually every football team worth a mention from around the world. There are so many icons they have had to be archived to fit on a single disk. There is an installer that de-compresses the icons for you onto your hard drive so that's not a problem for beginners.

The icons are well drawn, although they are not stunning. Apart from using the icon of your favourite team, this disk has a very limited appeal. The author has obviously put a lot of hard work into this disk and deserves a pat on the back for his trouble. The only question remaining is: WHY?

Verdict: 75%

MagicSelector

MagicSelector is a program which selects random backdrops and sounds for each time you boot up your Amiga. There are some samples and backdrops supplied. MagicSelector has only recently become Freeware, and requires Workbench 3 or better, a hard drive and MUI V2.2 or higher.

MUI is required for MagicSelector's Preferences program which easily enables you to select which backdrops and sounds you want to use, you can use your own as well as those supplied. There is a hard disk installer provided and it's all painless and simple to use. Just in case you do have any problems, though, ample documentation is supplied in AmigaGuide format.

MagicSelector is simply a novelty program, but one that does the job it sets out to do well. In that respect it's excellent.

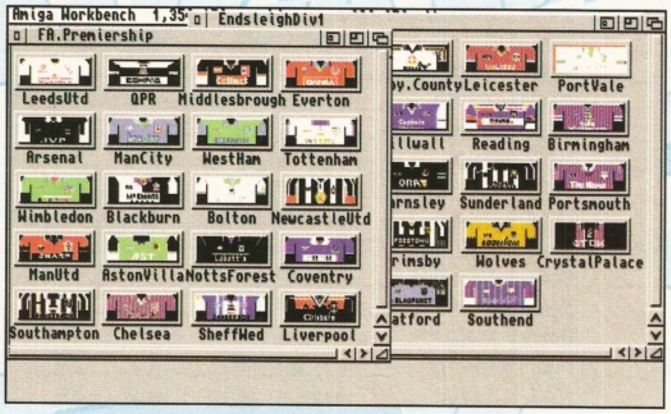
Verdict: 89%

Vark Cli Utilities #12

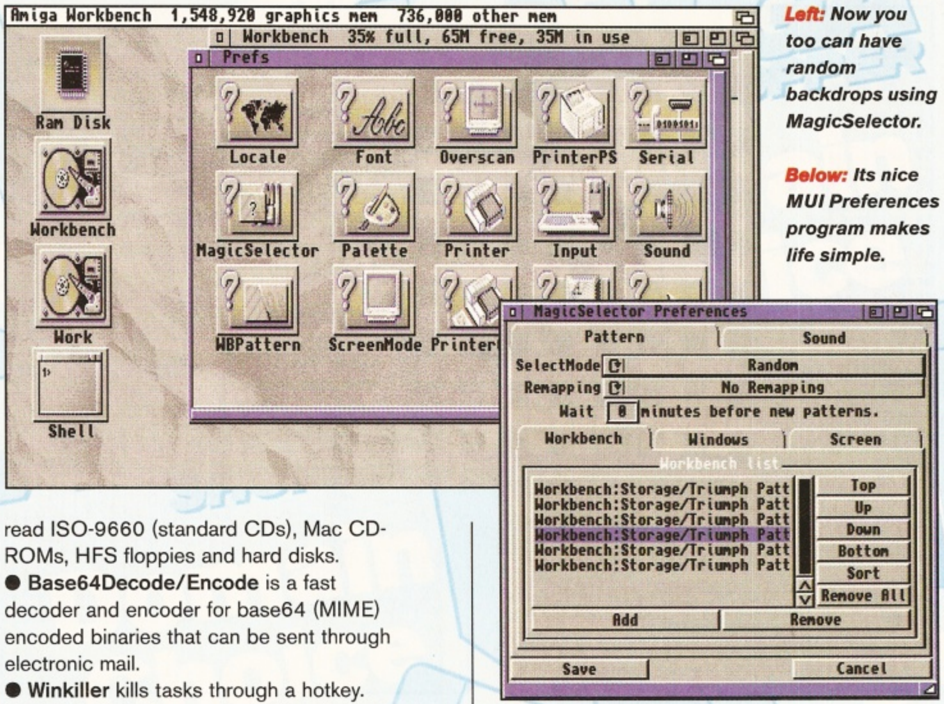
As usual, Vark has compiled a value-packed disk of strange yet interesting little programs and files. Vark's disks are not aimed at Amiga beginners, though, so be warned.

On disk 12 there are goodies such as:

- **AmiCDFileSystem** a file system which can



The World Of Football Icons. How many uses can you find for them? Answers on the back of a postage stamp to....



Left: ***Now you too can have random backdrops using MagicSelector.***

Below: ***Its nice MUI Preferences program makes life simple.***

read ISO-9660 (standard CDs), Mac CD-ROMs, HFS floppies and hard disks.

- **Base64Decode/Encode** is a fast decoder and encoder for base64 (MIME) encoded binaries that can be sent through electronic mail.
- **Winkiller** kills tasks through a hotkey.
- **IFF To ASCII** converts a picture into an ASCII text file which can be useful for BBSs.
- **EuroHack** fixes bugs and enhances the Amiga OS in general.
- **WaitVal** makes sure a disk or partition is validated before continuing.
- **Toot** saves files to ZX Spectrum from your Amiga, should you need to!
- **ReadRDB** allows you to save the Rigid Disk Block of your hard disk to a file for back-up purposes in case of problems..
- **FastExec** will move the exec.library from Chip memory to Fast memory.
- **Fastmode** will speed up any usage of the Parallel Device.
- **Floppy.device** is a big improvement over the current trackdisk.device.
- **WhizzHD** is a hard drive installer for the Whizz AGA game.

And if that's not enough – there is still plenty more for you to goggle at on this packed to the gills disk. There are even a couple of Doom clones and a Sensible World Of Soccer Team Editor to add a bit of light relief for gamer types out there.

Verdict: 90% **Star buy**

Pro-Organiser

Personal organisers, who needs them? That's what I used to think until I had the dubious pleasure of reviewing Pro Organiser. To my surprise, I have now found it might actually come in useful.

A personal organiser isn't the sort of thing you think you need until you get stuck in and realise what is on offer. You can't fault Pro-Organiser in the presentation stakes – it certainly looks good. Screens are uncluttered and crystal clear. The creators of the software, Pro-Soft, have made Pro-Organiser very easy to use, although a hard disk installer would help out some beginners.

Hard disk installation isn't that difficult to the initiated, of course. Drag the disk to your hard drive partition and add an assign to your user-startup file. This can easily be achieved with an installer and would give the whole package a better, more professional feel.

The on-disk manual is absolutely brilliant. It's really good to see that Pro-Soft have taken the time and effort to make sure people will understand and be able to use the program to its full potential. The main menu even has help bubbles in the style of MUI – a very nice touch.

One last piece of help is the PC-style 'Guided Tour' where the program takes you around each feature at your own pace and explains in turn what does what. Pro-Soft really give the impression that they want you to be able to use this software – a commendable attitude indeed and one that other software producers would do well to emulate.

And now folks, it's time for the feature list. Pro Organiser has a standard calendar which can show any year from 1900 onward. (By the way if Pro-Soft are reading this – I have found a tiny bug in the year selector box. It gets overwritten by something and only half the selector appears. This happens on other screens too – it's not serious, but it's a flaw never the less.)

Onto the diary where you can, of course, enter all those secret messages and dates you don't want to forget! There is also a security lock to stop people peeking at your privates, which could prove useful.

The 'contacts' section is where you can keep a list of useful names, addresses, telephone numbers and even keep notes.

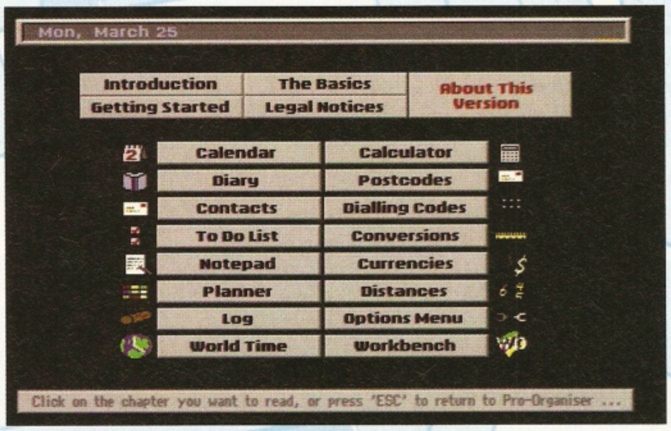
The 'To do' list is a place to keep things you must not forget to do, like put the cat out before you go to bed. Then there's the 'Note pad' for the odd note or two. A complete planner is also

The PD directory

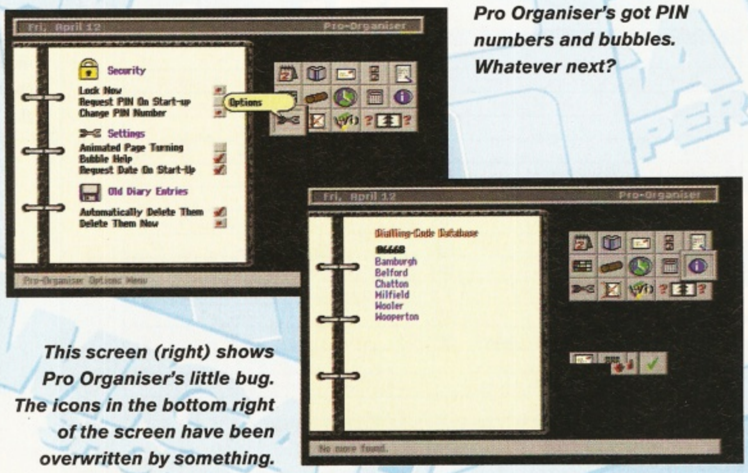
On the disk

You will notice references to the PD Directory in the "Who, what, when, where etc" boxout on page 68. This directory used to be printed within the magazine, but had to be in very small text because of the amount of information it contained. To solve this, we have updated and recompiled the list and put it on our Coverdisks as a text file in the InformationZone.

The InformationZone contains both the PD Directory and the list of User Groups (which also used to be in the issue). They are both in two formats, AmigaGuide and ASCII. The AmigaGuide enables you to point and click your way to the information, making it much easier to find the details you require. Read the ReadMe file for more information. See page 10 for details.



Pro Organiser's excellent help screen – clear and easy to use.



Pro Organiser's got PIN numbers and bubbles. Whatever next?

This screen (right) shows Pro Organiser's little bug. The icons in the bottom right of the screen have been overwritten by something.



Guitars II. There are only four mods on here but they're all crackers.

included which is impressive and extremely easy to use. I liked the idea of the 'Mail Log' facility so you can keep track of correspondence you have sent and received.

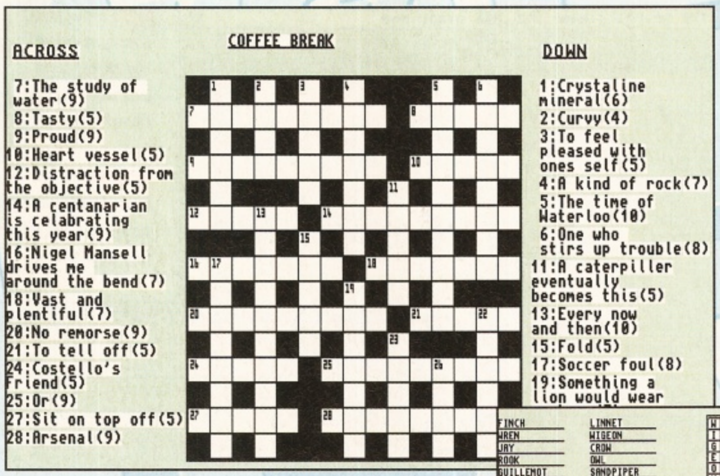
Then there some of the more unusual features such as 'World Time' – just click on the button and instantly you can see the current time in no less than 18 different countries. Along the same lines, you can find out any UK postcode or telephone dialling code and there is even a conversion screen where you can convert anything from pints to furlongs. There is also a neat currency converter where you can find out what your money is worth anywhere abroad – handy for those holiday outings. And let's not forget there is a standard style calculator to play with too.

From a programming point of view it is not difficult to implement these extra features, but I think it would be quite a laborious job. It just shows you how much time and effort has gone into making this program.

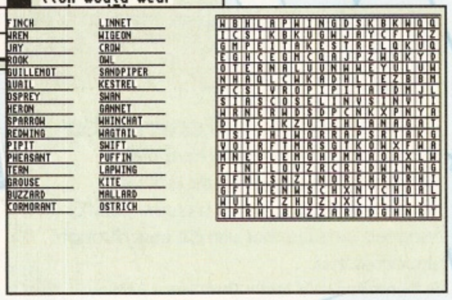
Yet another interesting bonus is that if you get any technical problems with the software all you have to do is pick up the phone and talk to Ali, the programmer – customer service is still alive after all.

Pro Organiser is the type of program you don't realise you need until you actually use it. And because of its clearly laid out screens and on-line help it is an absolute joy to use. Once the small screen bug is cleared up, the program will be very near to perfect. The copy used for this review of Personal Organiser is the full registered version (see page 12 for a special price offer), but a demo version can be found on this month's Coverdisk.

Verdict: 96% **Star buy**



WordPuzzle Pro allows you to knock up Crossword of this calibre easily.



Do people really still do Word Search puzzles?

Amiga Guitars II

I never came across Amiga Guitars 1, but if it is as good as this one I'll go out and get it. There are only four Soundtracker modules on this disk, but they are crunched and the disk is nearly full so you can't complain.

It's the quality that counts with this type of disk and these four mods are nothing short of fantastic. When I first booted the disk I was convinced that the music was just sampled straight from a record. I cured my curiosity by loading one of the 'mods' into ProTracker and I was amazed that these are genuine mods and not just one long IFF sample.

The composer of these mods should have a great future in the computer music scene. The disk is easy to use as it uses pixel Digital's Nucleus menu designer and that, as they say in show business, is that.

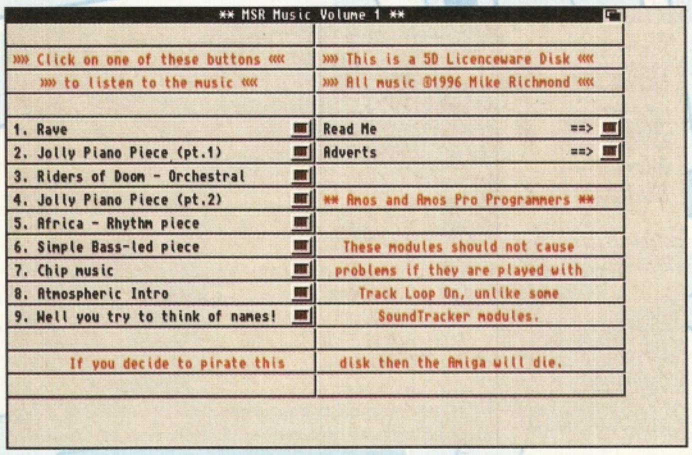
Verdict: 92% **Star buy**

Licenceware**Choice**

MSR Music Volume 1

This is simply a disk with some original music modules on it. There are tens of thousands of mods for free on the Aminet, but where this disk differs is that by buying the disk for £2.95 you have the author's permission to use the music in your programs, as long as you credit him.

There are nine modules on the disk in standard Soundtracker format and if you boot the disk, you can play them from an easy to use menu. But are the mods any good? Well the composer claims they are of commercial quality and that's true for most of the songs.



Mike Richmond's music disk has an easy to use menu for playing the mods.

Verdict: 80%

Let's Learn II

This is an educational disk for youngsters. It was written in 1991 so is entitled to look a bit out of date. The disk autoboots and you are presented with a menu with six possible options. One is 'Quit', which seems a bit pointless as you have to autoboot the disk so there isn't anywhere to quit to! The other five buttons are more interesting, though, because they are small learning games.

First up is 'Anagrams' where the user is asked to unjumble three lettered words. This is achieved by simply clicking on the appropriate letters on a alphabetical bar at the bottom of the screen. Next up is 'Mazes'. It's quite good and you have to guide a cute animated spider out of a simple maze by clicking on direction buttons.

'Pairs' is a straight forward game of clicking on two pictures that are the same out of a possible five. The 'Time' game is also very simple. The clock spins its hands to a random time and the user is asked to chose what the time is from a possible five answers. There is also a clown snoring in bed and when the user gets five answers correct the alarm goes off and wakes up the clown. The last game is 'Sequences'. The user has to guess the next number or shape in a sequence – some of the questions seem a bit hard when compared to the other games.

Still this is an OK program. Even in 1996 most kids will get a little fun out of it and learn a thing or two, but there are much better programs of this type around now days.

Verdict: 74%

WordPuzzle Pro

As you may have guessed already, WordPuzzle Pro enables you to design and create different puzzles. The program can print the screen, save the screen in IFF, or save the word and clue lists in ASCII files. You can then manipulate the files using art programs or desktop publishing programs.

WordPuzzle is possibly of most use to charities and clubs, for example, who can send out the puzzles to raise funds. Other interested parties could be crossword/word search fanatics who wish to create their own puzzles for friends or even to compile a book of puzzles for publication. The program also has solve and search features which are useful to anyone with an interest in puzzles.

There are a lot of extra features in this program than you wouldn't expect to find, such as a choice of 36 border patterns for the puzzle grids, a 65,000 word dictionary with a powerful 'suggest' mode, and much more.

There aren't many good programs of this type on the Amiga and WordPuzzle Pro is professionally put together and relatively straightforward to use. WordPuzzle Pro has an on-line manual and is hard disk installable.

Verdict: 92% Star buy

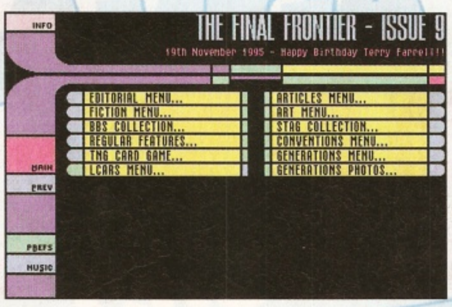
DiskMag**Choice**

BUG Magazine 1 and 2

AMOS programmers have enjoyed a plethora of disk mags over the years, but Blitz programmers haven't been quite so lucky – until now that is. BUG (Blitz User Group) is one such disk mag and it looks very good.

The front-end is rather nice and easy to use, but is a little spoilt by the background music cutting out when you access the menus, which I'm sure could be easily fixed.

But the content of the disk is good with a selection of tutorials for beginners and experts alike, and it's got the usual helping of source code and graphics that you can use in some of your own programs.



Final Frontier is without a doubt the bees knees for all Trekkies.

If you are a Blitz programmer, it is in your interest to support mags like BUG and through it help others to get to grips with what isn't the simplest thing to learn on the Amiga.

Verdict: 90% Star buy

Final Frontier #9

As everyone everywhere must know by now, this disk magazine is a Trekkie's dream come true. It comes on three disks and costs £4.50 – good value considering that it is not PD and can only be sold by authorised dealers such as SeaSoft Computing.

The front-end of the magazine is similar to the controls aboard the Enterprise itself – a nice touch for the users who know every bit of the starship inside and out! The menu controls feel and sound very good and it's fun and easy to use the interface.

But a magazine should be judged on its contents and Final Frontier goes to warp 10. Every issue brings you stacks of interesting data, stories, pictures and news of anything and everything to do with Star Trek.

I'm not particularly interested in Star Trek, but if you are, this disk mag will most definitely satisfy you. I can't see how anything could be improved – it's that good.

Verdict: 98% Star buy

TI Volume 13

TI is The official Med User Group magazine has been going quite some time. So far it's enjoyed a good reputation – and I'm not going to spoil that. There are tutorials on using Med V6 FAQ's and a good selection of news, ideas and articles as well as four excellent tunes. To top it off a basic, but easy-to-use, menu system will do very nicely thank you.

Verdict: 88%

NB.AMOS Issue 8

This AMOS programmers' magazine is not quite up to scratch. There is no front-end to make it easy and pleasurable to use. The contents of the two disks have to be used from the Workbench or a file utility which is just not on for a Licenceware title.

This particular issue does not have any articles, which is a bit strong for a magazine! But there is plenty of source code to dabble with, some of it which is quite good.

Disk two is a bit dubious as well, with just a PD game on it. It wouldn't be quite so bad if the source code to the game was provided. In essence, the second disk is a PD disk being sold as Licenceware.

NB.AMOS needs work on it – lots of work. The whole magazine lacks both enthusiasm and polish. The Editor, Neil Wright, is the same bloke who produces the very excellent BUG disk mag (see below, left). Obviously Neil has spent his time concentrating more on BUG than he has on NB.AMOS. Tut, tut!

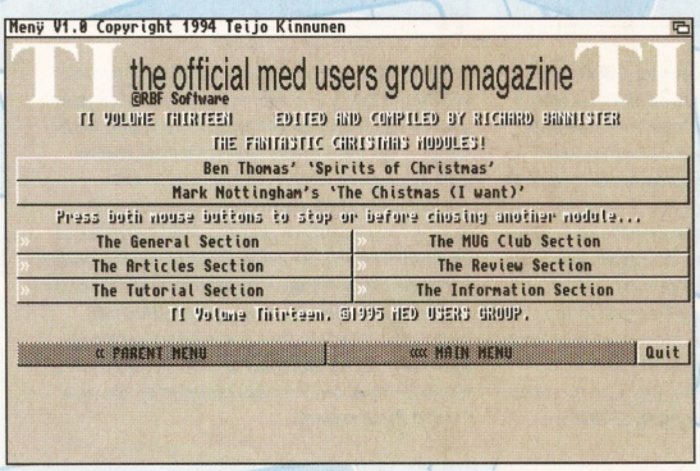
Verdict: 49%

Midicraft Issue 9

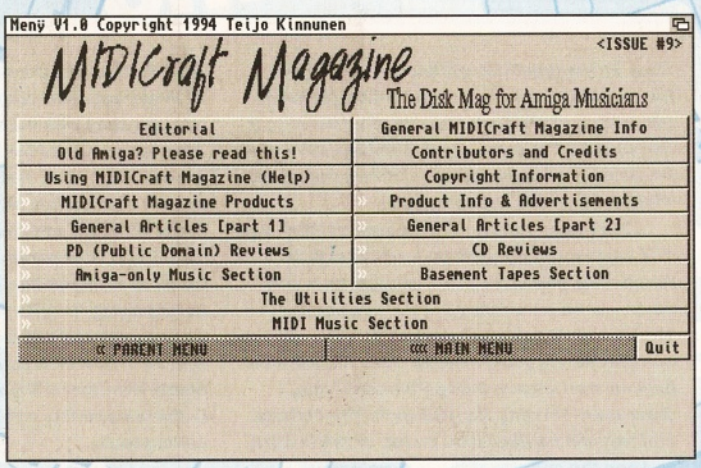
Another disk mag for musicians, Midicraft is similar to T.I. and it even uses the same menu system. But Midicraft has more content and style than T.I does. It also covers a wider range - all types of music, rather than concentrating on just one type alone.

There are some interesting articles on file formats: Music & Video Production, OctaMed, Sequencing, Midi, and so on, all of which are crunched. The disk is packed full and is good value for money.

Verdict: 91% Star buy



TI Volume 13, still going strong for Med users.



Midicraft, another very good magazine for musicians, written by musicians.

CanDo

Part 1

CanDo was on the AS62 coverdisk, so we've put together a step-by-step guide to get your fingers tapping on that keyboard and creating your own database. **John Kennedy** *is here to hold your hand...*



CanDo is an amazing authoring system for the Amiga. It combines the power of a high-level programming language with the ease of use of a paint program. You can build up applications either by entering the program or by pointing-and-clicking on the various icons.

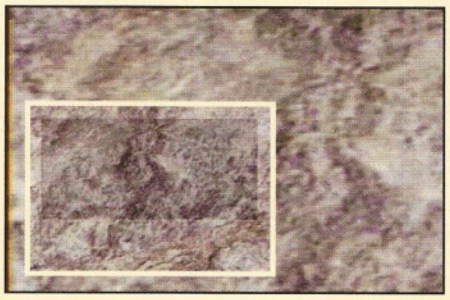
Over the next few months we'll construct a CanDo project which takes advantage of the many features and facilities at our disposal. The project will be a Database, capable of storing images, sounds and text. You'll be able to tailor it to your exact needs and use it to keep track of your CD collection or videotape library. Along the way we'll explore many of CanDo's powerful features which will enable you to write your own CanDo programs and before long you'll be as happy as a CanDo Deck dealer. ■

Image formats

CanDo can deal with most images stored in IFF format and displays them in practically all screen modes between two and 256 colours. You will need an Amiga with the AGA chipset for the higher colours and resolutions, which really means the A1200 and A4000. You can use any Amiga graphics utility to create suitable images for CanDo projects and so create backdrops or buttons from your hand-drawn or digitised images.

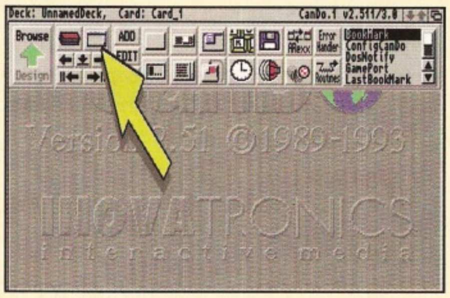
If you have an additional graphics card such as a Picasso II, CanDo won't by default be able to open a screen and you will need to make use of screen promotion tools such as 'NewMode'. You will find that CanDo likes to layer screens and this can cause problems: remember to flick backwards and forwards to see if there is a colour requester hiding somewhere.

Creating a backdrop

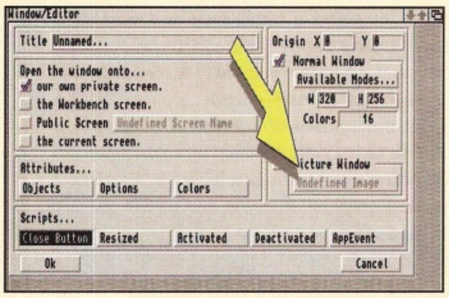


Step 1: ***The database project we create will have a single screen as its interface (at least for now), and we'll print the information onto it as required. To make a good looking backdrop, I'm using a 64-colour marble texture from a CD-ROM, and a 640 x 512 resolution.***

Depending on your Amiga and memory, you may want a smaller texture – or none at all. Remember, you can open a window on a new screen or on an existing screen such as the Workbench. If you want control over the colours and resolution, you'll need to open the window on your own screen. Using Personal Paint, I drew some shading for a 3D look. The buttons and text will be displayed on top of the texture, so keep the colours of the texture muted.

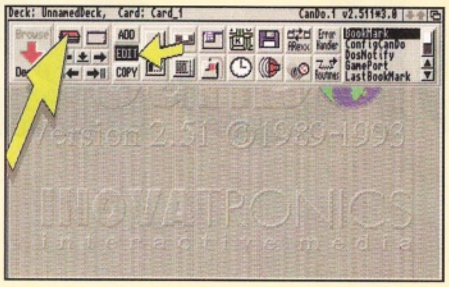


Step 2: ***Now we can start CanDo. CanDo is one of those excellent programming utilities which lets you start with the user interface and only then can you build the program 'behind the scenes' as it were. But this does mean you can design an amazing, all-singing all-dancing mega-program and then discover that what you want to do is impossible, so it's worthwhile trying to discover the limitations of CanDo before trying to write your killer application. With CanDo started, we are given a single Deck with one Card in it. By default, the card is an empty Window on the screen. Click on the icon indicated and this will bring up the Window editing tools.***

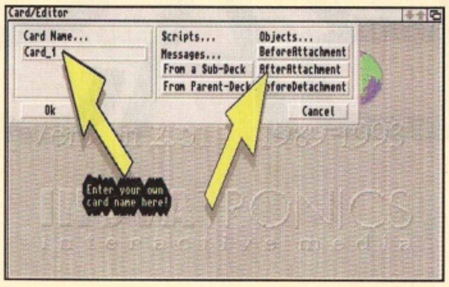


Step 3: ***This is where the look of your project will be defined. The look of every Card in your CanDo Deck can be different, and either be a window on the Workbench, or a new screen with your open choice of colours. In this instance we shall open a new screen and window especially to suit the Marble textured backdrop which we defined. Click on the button indicated to open up a requester and select the backdrop image. The image we select will define the Window that is loaded. By default there is a script associated with the Window's close gadget, but there is no need to change that at the moment.***

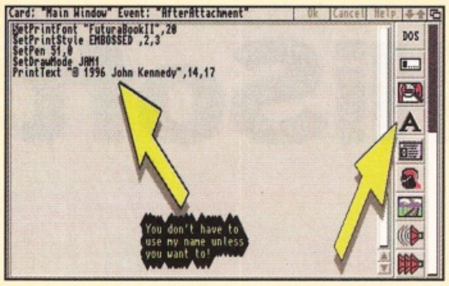
Pressing the right buttons



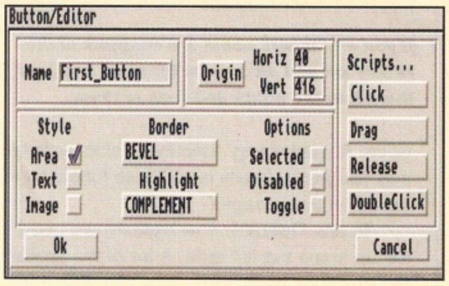
Step 4: *After selecting the backdrop, return to the main display. You will see the screen open and the Window with the texture appear. Let's try something simple, such as adding a copyright message to the display. Adding text should be done after the window has appeared, and there is a special script which is called when this happens. Make sure EDIT is selected, and click on the Edit Deck icon. You'll see a window appear listing the current Cards: there is only one, so select EDIT to bring up the window associated with that particular Card.*



Step 5: *Now you can change the Card name, if you wish. You'll also see a collection of buttons. Two are for passing messages to and from sub-decks. The other three are for editing the scripts which are executed at certain times. 'Before Attachment' happens before the Window is displayed, and is often used to pre-load animations and sound effects. 'After Attachment' is executed immediately after the Window is displayed on-screen. 'Before Detachment' occurs when the Card is about to be removed from the display. It's here where graphics and sound buffers are emptied to get memory back. Click on the 'After Attachment' button and the Script Editor window appears.*



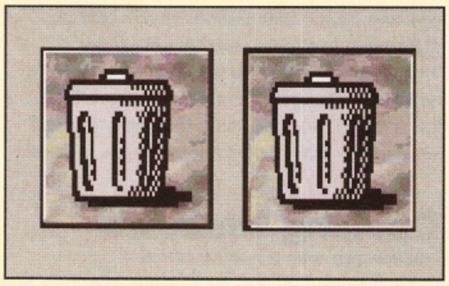
Step 6: *Scroll down the icons on the left of the Script Editor, and you'll see a large letter A. This icon makes it easy to add text to your window. You'll need to choose the font and the size, then the style and various colours. You can choose from plain, bold or various shadow and embossed effects. Careful selection of the colours can provide some very pleasant effects. You will also need to position the text, but the cross-hair system makes this easy. When you click on OK you'll see the various script commands have automatically been added: you could have entered them directly if you wished.*



Step 7: *Return to the main menu. You will see the text added to your Card when you use the arrow gadgets under the Card navigation buttons to move back to the Window and cause it to redraw. Now add some buttons to press. The simplest way to create a button is to select ADD from the ADD/EDIT/COPY buttons and click on the button icon. Sometimes it is easier to use the EDIT option and click on the Button icon: you'll get a list of buttons to choose from and choose to add one at this point. Try both ways to understand fully what I mean!*

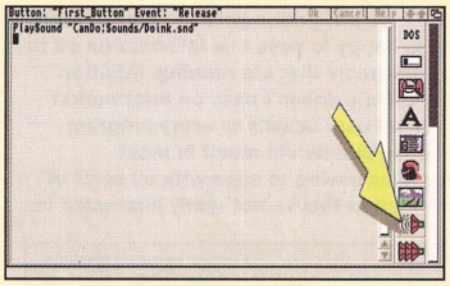


When you have buttons already on-screen, you can easily bring them up for editing by switch from BROWSE to DESIGN mode (click on the left-most icon on the main menu) and then click on the button you wish to edit. No matter what route you take, eventually you'll be asked to draw out the size of the button, and then you'll get to the button editing screen in Step 8. Sketch out a small-ish square: you can alter it later.



Step 8: *There are so many styles to choose from when you're making buttons in CanDo:* **Area button.** *This is the default. The square you sketched out becomes the 'hot spot' and will trigger something when it is clicked on. You can decide how the area will be outlined by clicking on the 'border' button.* **Text button.** *Words with an outline around them, eg, you might use a text button to add 'OK' and 'CANCEL' options to a requester.* **Image button.** *This one allows you to load in any brush and use that as a button. So you can load DPaint and draw a beautifully rendered button and as long as you keep the same colours as used in the backdrop, it will look stunning.*

In all cases, the 'Highlight' button controls what happens to the look of the button when it is pressed. It can stay the same or the colours flash or an outline appear. With an image button you can make a second brush appear: this means you can draw the brush images to move inwards when you click on them. Spend time creating the buttons as they are the main way for the database user to interact. When the project has taken on more shape, you'll be able to design icons especially. The icon above I designed for the 'delete' function, using the marble texture and help from Workbench. The two images give the impression of the button clicking in when selected.



Step 9: *We can now choose what happens when the button is pressed. There are several scripts to choose from: Click, Drag, Release and Double Click. The usual technique is to use 'Release', because this is the safest option – the user must click on the mouse button, and release it again for the click to register. Open this script, and for the moment add a sound effect using the sound helper button. Soon we'll attach more useful actions!*

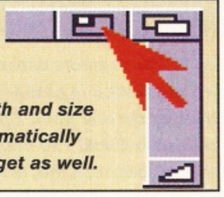


Step 10: *Return to the main menu and click on the 'Browse/Design' icon. Now you can try out your Deck, and although it doesn't achieve much at the moment – it's only a matter of waiting a month for the second installment of this tutorial...*

HiSoft BASIC2

The creation and use of HiSoft Basic 2's gadtool gadgets seems to be causing problems for a lot of Amiga Shopper readers. So, this month we're tackling the problem and putting you all on the right track – it's not as difficult as it looks – honest!

Although there are plenty of examples provided with the HiSoft Basic 2 package, the gadtool related ones seem to involve a lot of difficult looking operations. To appreciate why this is so you need to know about the role that Intuition plays as far as event detection is concerned. Whenever an Amiga user does something – moves the mouse, hits a key on the keyboard, takes a disk out of the drive – then Intuition gets to know about it and is happy to pass this information on to any programs that are running. Intuition deliberately doesn't pass on information about all user activity to every program because that would result in most programs having to cope with all sorts of information they're not really interested in.



When you ask for depth and size gadgets Intuition automatically gives you a zoom gadget as well.

Instead programs ask Intuition to provide messages, known as IntuiMessages, just about those events they want to know about. It's done by setting flags in one of the fields of the structure used to represent an Intuition window. When Intuition sees that this has been done it automatically sets up two message port structures for the window which are then used to provide window-specific Intuition communications. As soon as a particular window becomes active (which the user does by selecting and using it) Intuition starts feeding it information. The messaging system, formally called the Intuition Direct CoMmunications Port mechanism, goes by the acronym IDCMP (pronounced eye-dee-comp).

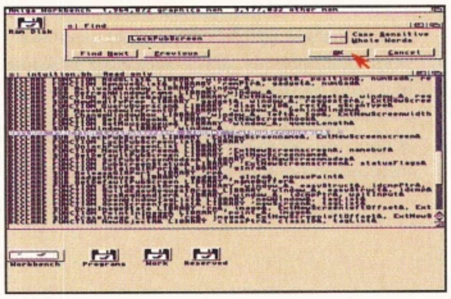
To use gadtool gadgets a program has to create the gadgets, attach them to a window and ask Intuition to send the appropriate messages whenever those gadgets are used. It also has to watch for incoming messages and this requires a wait loop which puts the program to sleep until something of interest happens.

Now comes the crunch. The only support that HiSoft Basic 2 provides for gadget handling is the `ON CLOSE` statement used to detect use of a window's close gadget. There are no high-level mechanisms for encouraging Intuition to send messages about other types of events like gadget use (nor are there easy-to-use statements for collecting such messages even if they could be sent).

So not only is it necessary to move outside of the core HiSoft Basic 2 language to set up the gadgets and handle the gadget messages, but the underlying Intuition routine for window opening (rather than HiSoft Basic's `WINDOW` statement) has to be used to set up the IntuiMessage flags that tell Intuition about the types of messages to be sent. In short, there's a lot to do and to appreciate the code required we need to look at the various stages in detail!

Opening windows

Intuition provides a routine called OpenWindowTagList() for opening windows and I'm going to be using this to open a window in the Workbench screen. You might think that once the intuition library is opened we would simply make a call to OpenWindowTagList(). It's actually more complicated than that because in practice a user (or an applications program) could close the Workbench while we were in the middle of opening a window. So Intuition provides a locking function which allows an application to force the Workbench to stay open. An 'unlocking' function is also available and you'll find details of all these functions in the boxes on these pages.



If you are unsure about the contents of the HiSoft .bh and .bc header files you can load them into the editor and look at them.

To use OpenWindowTagList() we need to set up some tag list data. A lot of the available tag identities have obvious names. WA_Left, WA_Top, WA_Width, WA_Height and WA_Title are used to provide details of the size and title of the window. WA_DragBar asks Intuition to place a drag bar on the window if the data item field is set to TRUE&. The WA_DepthGadget, WA_CloseGadget and WA_SizeGadget gadget tags (which tell Intuition that we want these system gadgets in the window) behave in a similar fashion. The WA_Min/Max type tags are used to provide minimum/maximum window co-

Intuition functions

Intuition Function: OpenWindowTagList()
Description: Opens window using NewWindow &/or tag list data
Call Format:
window_p&=OpenWindowTagList&(new_window_p&,tag_p&)
Arguments:
new_window_p& – pointer to a NewWindow structure
tag_p& – pointer to a tag list
Return Value: window_p& – address of window (NULL if routine fails)

Intuition Function: CloseWindow()
Description: Does the obvious!
Call Format: CALL CloseWindow(window_p&)
Arguments:
window_p& – pointer to the window to close
Return Value: None

Intuition Function: LockPubScreen()
Description: Prevents a public screen from closing
Call Format: screen_p& = LockPubScreen&(name_p&)
Arguments:
name_p& – pointer to text string giving name of screen
Return Value: screen_p& – pointer to screen (or NULL if routine fails)

Intuition Function: UnlockPubScreen()
Description: Release a public screen lock
Call Format: CALL UnlockPubScreen(name_p&,[screen_p&])
Arguments:
name_p& – can provide pointer to name of screen (normally supplied as NULL)
screen_p& – pointer to screen
Return Value: None

Window opening with Intuition

```
FUNCTION OpenMyWindow&(x&,y&,w&,h&,w_min&,w_max&,h_min&,h_max&,t$)
STATIC workbench_p&
STATIC window_p&
STATIC window_tags&(36)
DIM window_tags&(36)
workbench_p&=LockPubScreen&(NULL&)

IF NOT (workbench_p&=NULL&) THEN

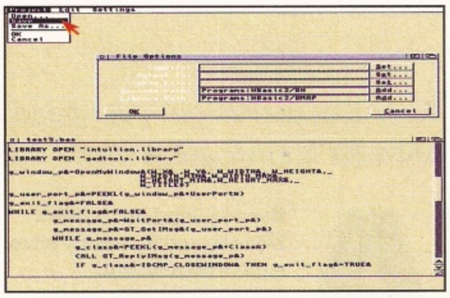
    TAGLIST VARPTR (window_tags&(0)),_
    WA_Title&,t$,_
    WA_Left&,x&,_
    WA_Top&,y&,_
    WA_Width&,w&,_
      (you'll find various other tags used in the source)
    TAG_END&

    window_p&=OpenWindowTagList&(NULL&,VARPTR(window_tags&(0)))
  CALL UnlockPubScreen(NULL&,workbench_p&)
END IF

OpenMyWindow&=window_p&
END FUNCTION
```



HiSoft Basic 2's variable checking can help prevent silly coding slips.



Remember to set the proper locations for the headers when compiling the example.

ordinate values and WA_PubScreen is used to supply the address of the screen being used. The WA_IDCMP tag is very important since on seeing this Intuition arranges to send the program all the message types specified in the corresponding tag data field.

So, the sort of operations we need to perform are essentially these...

```
        lock Workbench screen
        if lock is obtained then
                set up window tag list
                open window
                unlock screen
        end if
```

The listing box above shows the OpenMyWindow() routine from this month's example, which can be found on this month's Coverdisk. The code may look complicated, but using the routine is simple. When you examine it, you'll see the program fragment for opening and closing the window comes down to this:

```
g_window_p&=OpenMyWindow&(<-a few window
parameters->)
IF NOT g_window_p&=NULL& THEN
<-do something whilst window is open->
CALL CloseWindow(g_window_p&)
END IF
```

Message Collection

Providing IDCMP flags are specified using the WA_IDCMP tag, then Intuition will set up communications ports for the window. The port which IntuiMessages are collected from is known as the user port and its address can be found by looking at a field called UserPort in the window structure. The appropriate structure offset UserPort% is defined in the intuition.bc constants file and so to get the address of the port we just add this offset to the window address and use PEEKL() like this:

```
g_user_port_p&=PEEKL(g_window_p&+UserPort%)
```

Exec provides a signalling system which enables a program to be told when messages have arrived. Normally a function is called which inactivates the program and so doesn't use any processor time until a message arrives. There are two standard functions for achieving this – a Wait() function, used if you need to wait on signals from different sources, and a WaitPort() function that allows a program to wait for messages at a specified port. Since my example code only involves one window I've opted for using this latter function and you will therefore see this statement in my event handling loop:

```
g_message_p&=WaitPort&(g_user_port_p&)
```

There is standard way of processing messages as they arrive at a port. You unlink them from the port, extract information required from the IntuiMessage structure fields, and then send the message back to Intuition with a marker that says it is finished with. The exec library functions for doing this are called GetMsg() and ReplyMsg(), but when gadtools gadgets are involved, two equivalent gadtool routines GT_GetIMsg() and GT_ReplyIMsg() need to be used instead. I'm using these latter functions in readiness for next month's tutorial looking at the gadget creation stages.

The signal that a message has arrived actually means that one or more messages have arrived and so each time the program gets a signal it needs to be able to loop process any number of messages. It's done by collecting messages until such time as the GT_GetIMsg() routine returns a null value (indicating that there are no more messages to collect). This loop collection needs to be done *each time* the program is woken up so we end up with a double loop arrangement whereby an outer loop is continually putting the program to sleep and waiting until something of interest happens. Within this an inner loop processes all the messages that arrived whenever the program wakes up (see box below for details).

One of the fields present in the IntuiMessage structure, called Class, enables the message type to be identified. All I have done with this month's example is to extract this value, check that it represents an IDCMP_CLOSEWINDOW event, and if it does (which it will since they are the only messages that were asked for) then I set a g_exit_flag& variable to TRUE& which causes an exit from the event loop code. The program then closes the window (and the libraries) and terminates.

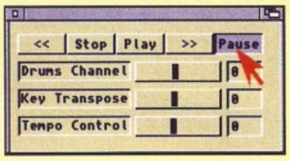
This month's program is certainly nothing to look at – just a window that shuts down when you hit the close gadget. But with the tag based window opening, Intuition event generation and the gadtools based event collection loops, everything is in place for easy addition and handling of gadtool gadgets and menus. And that's what's coming next month. ■

Jargon Busting

Flag: **A value represented by the position of a single bit. A long word, since it has 32 bits, can therefore be used to represent 32 different flag values.**

Event collection loop using gadtool functions

The example's event collection loop using the gadtool message functions



Next month all the magic of gadtools gadgets will to come to the fore!

```
WHILE g_exit_flag&=FALSE&
    g_message_p&=WaitPort&(g_user_port_p&)

    g_message_p&=GT_GetIMsg&(g_user_port_p&)

    WHILE g_message_p&

            g_class&=PEEKL(g_message_p&+Class%)

        CALL GT_ReplyIMsg(g_message_p&)
        IF g_class&=IDCMP_CLOSEWINDOW& THEN g_exit_flag&=TRUE&

        g_message_p&=GT_GetIMsg&(g_user_port_p&)

    WEND

WEND
```

The beat goes on

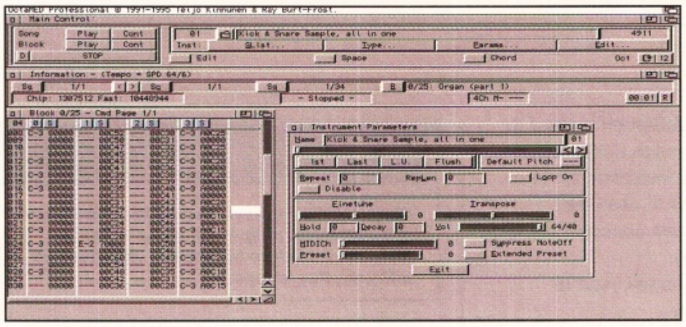
Now that you've got your head around the concept of samples and sampling, **John Kennedy** *and* **Darren Irvine** *get uncharacteristically funky and take a look at rhythm and percussion.*

After reading last month's tutorial, you'll already have experimented with sampling on your Amiga and you will have noticed that some types of sounds sample better, and with more consistent results, than others. The limited resolution provided by the Amiga's 8-bit sound hardware means that certain sounds, particularly 'real' instrument sounds can end up sounding fairly lifeless and are hard to sample without noise.

However, sounds that have a large dynamic range and already contain some element of noise, such as media snatches and percussion sounds, sample extremely well on the Amiga. This happy fact means that even if you are using outboard sound equipment such as synthesisers or sound modules for most of your sounds, you can still make good use of your Amiga for percussion as well as sequencing.

Loop the loop

When considering percussion samples the main choice to be made is between individual drum and percussion sounds or sampling drum 'loops' – entire bars of percussion track (sometimes referred to as 'breakbeats'). Both approaches have pros and cons, and which technique is more effective will often depend on the type of music that you are trying to make.



OctaMed can knock up some pretty heavy percussion loops, although you may use up more than one track doing it. No problem: stick a deep synth sample on the remaining track and call it 'Drum and Base'.

Most techno and house music relies almost exclusively on programmed percussion – in other words, individual kick drum, snare and hi-hat samples programmed into a bar of percussion. Other genres such as Jungle and Breakbeat (which by definition uses breakbeats) use sampled drum loops almost exclusively. Of course, today a lot of music falls into various cross-over categories and you will probably find yourself using a mixture of individual drum sounds and loops.

Drum Machines

If you have an external drum machine, or sound module that includes drum sounds, then you can use these alongside the internal samples on your Amiga. The sound quality of professional drum machines is certain to be far higher than you can achieve by sampling yourself, because in most cases Japanese studio engineers spend days on each sound. If you find yourself spending more than a couple of hours on a hi-hat sound, I suggest that you switch off your Amiga and go outside and get some fresh air for a week or two.

However, hardly any sound modules come with drum loops built in, so if you want a combination of programmed percussion and loops, your Amiga will still see some action. Of course, you could use a professional external sampler to replace both a drum machine and your Amiga's internal sampler, and you will probably achieve excellent results. But you would have to be prepared to spend about a grand on drum sounds alone.

Most 'drum machines' as opposed to 'sound modules' come with a built-in sequencer, but it's a good idea to forget about these and do all your sequencing on your Amiga. Otherwise, for

MIDI Controllers

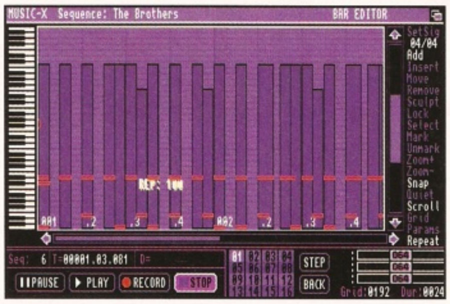
How you get your music into your sequencer (OctaMed, MusicX, or whatever) will determine the quality and 'feel' of a piece. You can, of course, do without any form of music keyboard, and enter the notes individually by hand. This takes a long time and you will need to be very good at it to get the volumes and timing right.

Instead, think about getting a MIDI controller. If you have a MIDI synthesiser, then it is likely you already have a controller in the shape of the keyboard. Using the keyboard you can hammer out drum patterns as well as melodies and chords, and any keyboard worth using will also be 'velocity sensitive'. This means the harder you press the key, the louder the sound: it's really rather essential. However, if you don't have a synth keyboard (you might have only synth, sampler and drum modules – or you might only have your Amiga and nothing else) you aren't stuck.

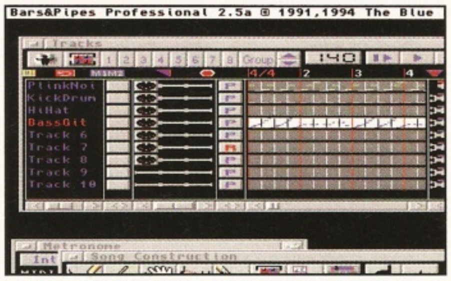
So-called 'mother keyboards' don't make any noise – they only transmit MIDI information. They start at just over £100 or so, and a good one, like the Evolution MK149 we use, can also transmit MIDI controller information as well as normal note, volume and pitchbend information. Adding a keyboard like this to even an OctaMED only set-up is worth considering, because you'll be able to add an extra dimension to your sound instantly. Drummers can also buy electronic pads which respond to how hard you hit them, but these tend to be more professional and so expensive.



Adding extra feel needn't cost big bucks: this keyboard can be bought for a little over £100, although it doesn't make much noise by itself.



Darren's Chemical Brothers loop (see box below) partly programmed in Music-X.



With the Bars and Pipes sequencer it's easy to construct several percussion parts of a few bars each and then sort them into order.

every song you write, you will have to save it twice – on the Amiga and on the drum machine.

Some Examples

Of course, when you're writing music you don't want someone else to tell you what to do, but sometimes it can be useful to take a look at someone else's work 'as a starting point', 'for pointers' or even 'to shamelessly rip off'. So I've dug out from my 'handy box of programmed and looped percussion' some examples of a number of different percussion styles (note for the hard of thinking – this isn't a real box – it's a metaphor).

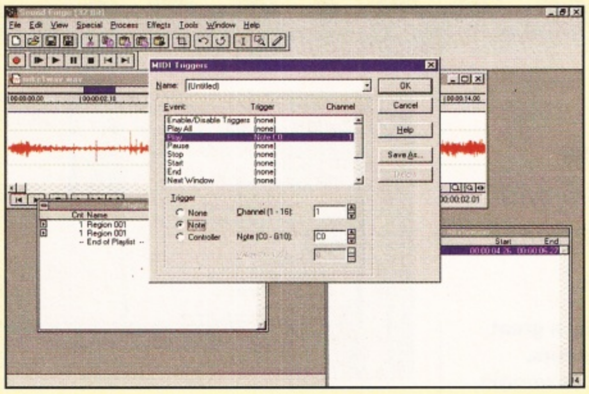
Although many types of music (notably those trying to appear in some way 'ethnic' such as Goa-trance) have van-loads of acoustic percussion layered on top, the three most important elements of a percussion loop are the kick drum, snare and hi-hats or ride cymbals. So usually these are the first things that you should consider when building up the percussion for a track (I used to be a 'let's put lots of bongos there and fix it in the mix' guy, but I'm alright now). You can program these sounds into a tracker like OctaMed using your Amiga's samples or using a sequencer such as Music-X and external drum sounds.

In the box below you'll find suggestions for loops you can produce. But if you're going to come up with original sounding loops, you'll have to find you're own secret ingredient to stick in along side the traditional kick and snares. ■

So you have a PC do you?

It's OK – you can admit it, it's nothing to be ashamed about. Lots of people have a 'dreaded' PC as well as their beloved Amiga. Although PC hardware is notoriously hard to configure, the sad fact (for Amiga users) is that PC sound cards are cheap and of higher quality than the Amiga's built-in sound chips. This is due to factors such as 16-bit resolution and on-card RAM for samples. Most PC systems are also capable of sampling and replaying samples direct to and from hard disk without breaking into a sweat.

But, if you have a PC you can use your Amiga running a sequencer to trigger samples on the PC via MIDI using the same techniques as you would for samples held locally on your Amiga. All you need on the PC end is software that is capable of receiving MIDI data and mapping it to the samples held in memory or on disk. In the case of replaying samples from hard disk, using a PC means that you can get high-quality playback of very long samples without affecting the sequencing capabilities of your Amiga.



The PC has some high-end software: but in this case we are deliberately trying to demean it by using the £500 SoundForge package to trigger samples over MIDI, hee hee.

Recording Percussion Sounds

If you want to go the whole hog and sample percussion and drum sounds direct from the original source, the first thing you'll need is a decent microphone – using the built in mic on your portable stereo just won't do, I'm afraid. Also experiment with microphone placement – some drum sounds such as bongos benefit from close mic placement so that you can capture the 'accidental' sounds of the players hands. Other percussion instruments with a large white-noise component may benefit by moving the microphone away slightly to capture more of the ambient noise.

A sampling rule which applies particularly to sampling live percussion is to make sure you get your levels set accurately. Experiment and try to sample at the maximum level that doesn't distort – this way you'll get less noise along with your percussion.

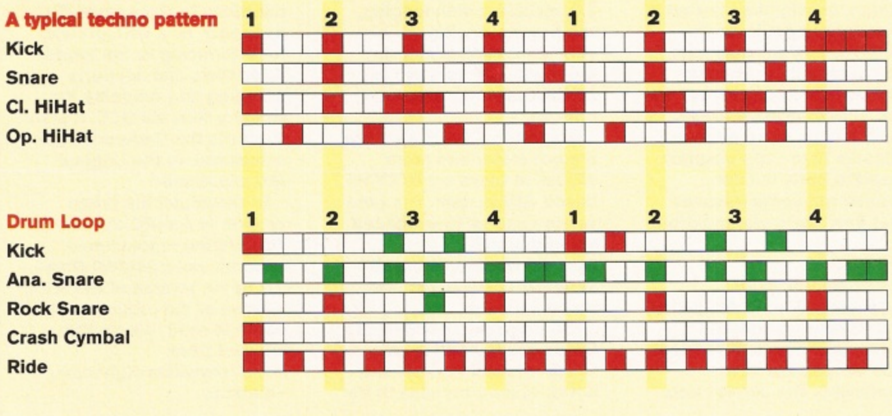
As ever, when sampling sounds with a rapidly changing amplitude envelope (drums are about the fastest) make sure you spend a reasonable amount of effort editing the sample to make sure you remove any unwanted gaps before and after the percussion sound. You should also do your best to avoid aliasing effects as the sound cuts off – these can become very noticeable when playing back a sound that repeats a lot – say, a hi-hat or kick drum.

The Basic Techno Loop and Darren's Chemical Brothers Rip-off

Traditionally, techno used the same TR-808 and TR-909 sounds as hip-hop and acid, and most modern drum machines and sound modules have had a go at reproducing these classic sounds. Techno is basically a 'four-on-the-floor' kick, plus 16th note hats. Various off-shoots of techno treat the snare aspect in different ways, and also run at a speeds from around 120bpm to 145bpm.

For copyright reasons I have to say that this drum loop (see right) isn't really a rip off, it's just that I've called it that for reasons of my own. Many cross-over dance styles use disparate elements of rock, funk as well as techno to build up drum loops, and often use different types of cymbal and snare sound.

■ = Normal volume ■ = about 2/3 volume



Comms Column

Netwalker **Darren Irvine** *recharges his laser beam and brings you Amiga news from the World Wide Web...*

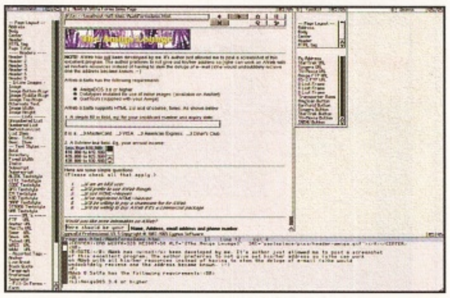
The Internet is usually a great source of news, rumours, vague notions, and downright lies. The past few weeks have been no exception, and in terms of news, rumours, vague notions, and downright lies that relate in some (at least tenuous) way to the Amiga, most of the (dis)information has been concerned with one thing – the Walker.

This weird looking beast is the much touted 'Future of the Amiga' and everyone with even half an opinion about the Amiga is putting forth some theory or other regarding it. As well as the barrage of nonsense being talked about the new machine, there are a number of at least semi-sensible Web pages that have some information about it. If you want to see what other people are saying about the Walker try one of the following URLS:

http://www.bangor.ac.uk/~eeu013/walker.html
http://www.doremi.co.uk/walker



You've seen this picture in all the Amiga Magazines. See it on the Internet now as well.



AWeb looks pretty smart, and the current Alpha versions are very fast.

Web Browsers

The number of available or in-development, or figment-of-someone's-imagination Amiga Web Browsers seems to grow on a weekly basis. At last count the list was:

ALYNX This text-only browser is now showing its age, but used to be the choice for MUI-phobics, and might still be worth a look if you only need text from the Web.

AMOSAIC Latest version 2.0 pre 3, now stopped development due to IBROWSE. Uses MUI, but was the first graphical browser for the Amiga. Still, the last version was fairly stable.

AWEB Still only in Alpha versions. Seems fast, doesn't rely on graphics but can handle everything you can throw at it.

Chimera Strange one, this. Needs AmiWin, therefore not accessible to most users. I'll bring you more news of this when it's available.

Hyperion Doesn't use MUI, still in development. Like Chimera, not much is yet known about Hyperion – again, I'll bring any news of it as soon as possible.

IBrowse From the people who crashed your machine with AMosaic. Still relies on MUI, and early versions didn't support forms, and crashes a lot. Does have support for HTML 3, however.

Juggler Brings Hot Java capabilities to the Amiga! Non-MUI and fairly well developed.

MindWalker The preferred AT choice. Uses MUI, but is by Ollie Wagner and Kerl Belvve, so should be stable if Ollie's AmiRC is anything to go by. Shareware version is named Voyager. Should also support Mail and News reading in the same way as Netscape on the PC.

Weblink Fairly far into development, uses its own graphics engine, therefore non-MUI. ■

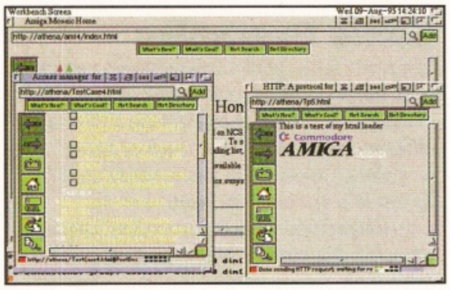
Resource Watch



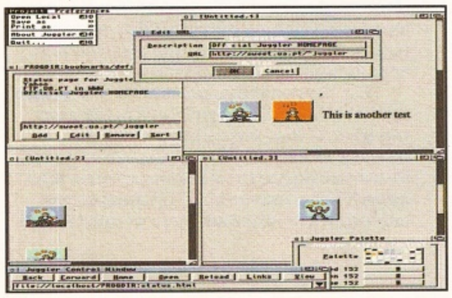
As well as being a great place to get hold of new software for your Amiga, the Internet is a vast resource for other information. if you use your Amiga for image rendering or other type of graphics, you will find a wealth of information and files on the Net. For example, Distinctive Design's Web pages offer rendered objects and other images for artists and renderers. Have a look at: http://www.heathcomm.no/~gfxdude

Or if you want to look at the work of other Amiga artists, check out the Rainbow of Chaos at: http://www.indy.net/~gemini

Both these sites also have useful links to other Amiga art sites on the Net.



IBrowse is the natural successor to AMosaic 1.2, but does that make it any good? Not yet.



Juggler will support Java when it's finished, so should be worth waiting for.

Software Online

If you want to get hold of the latest version of a particular piece of software for your Amiga, usually the Internet is the place to get it. Both Shareware/Public Domain software and commercial demos usually appear on the Net before anywhere else. Each month, more software appears than I can possibly mention here, but I've singled out some releases that bear particular mention.

IRC Clients

The competition for supremacy among Amiga IRC clients hots up with the imminent release of version 2 or the popular client Grapevine. The current beta version (1.452) is now available and has much of the proposed functionality of 2.0, including disk logging, tab-key messaging, command aliases and (for the registered version) an AREXX port for scripting options.

Grapevine 2.0 will also use a much faster and more attractive Class act BOOPSI based GUI system. The beta version can be downloaded using this URL: ftp://ftp.warped.com/pub/amiga/grapevine/gv1_452 unreg_beta.lha.

The only real alternative to Grapevine is AmIRC, and which one will turn out the better system remains to be seen when the final versions of both are made available.

AmIRC has interesting additions to the normal IRC spec such as a URL grabber for interfacing to the World Wide Web, and supports dragging and dropping for sending files via DCC. It also supports the Undernet style extensions to the original IRC client spec.

To download the latest version of AmIRC check out: http://www.vapor.com/support/amircGoldED Demo.

A demo version of the 3.1.3. release of the programmer's editor is available on the Internet from: http://www.clearlight.com/~dietmar

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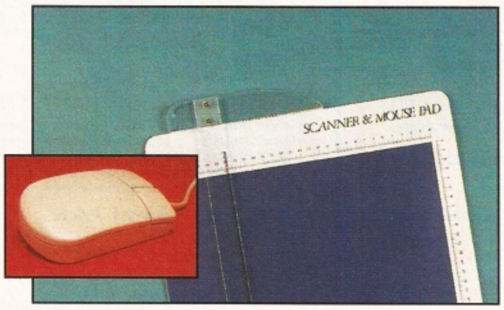
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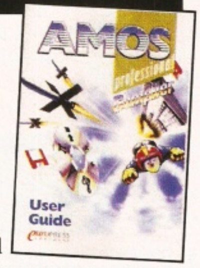


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AMOS Pro Compiler 2

Speed up your AMOS programming with the AMOS Pro Compiler 2 from Europress, which F1 Licenceware have re-released for a limited period. If you want to know more about the program, we ran a review of it in the April 1996 issue, where we gave it a respectable 87 per cent.

Description	AMOS Pro Compiler 2
AS price	**£14.99**
Order code	**AS/AM/1**
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Mini Office

A collection of database, spreadsheet, graphics and word processor programs from Europress that you shouldn't be without. It can be especially useful if you are planning to set up a small business.

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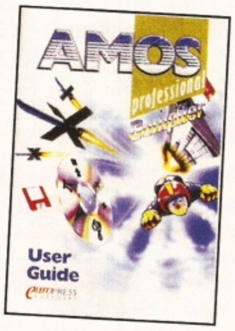
The AMOS debate continues; Pagestream comes under fire; Escom are praised; Coverdisks are declared both the best thing and a con! It's all here and a lot more. AS readers don't pull any punches.

There is one language that although years old, refuses to go away. Now even AS, who recently showed their support for the language with a tutorial, stands accused of treachery. What is it about AMOS?

Must have AMOS



I read with some concern that you intend to end Steve Bye's excellent AMOS column to replace it with a tutorial on HiSoft BASIC. Despite AMOS being the most widely used version of the language, readers seemed to be forced to beg for support from AS. I am rather concerned with your magazine's position.



Having used HiSoft BASIC since its days on the ST, I know that it is a powerful language, but it seems essentially flawed in that HiSoft refuse to add the extensions that every other version of BASIC supplies as standard (easy sprites, playing Soundtracker modules, loading IFF pictures) and assumes that the users should know how to do this. I'm sorry, but they do not.

I tried Blitz BASIC, twice supplied by Amiga Format, but was unable to install a stable version that could compile the supplied examples on my system without crashing (and yes I did try all the suggestions in the readme files).

In short, AMOS is the most productive version of BASIC available for the Amiga and the most used version. So why are you cancelling the column?

I also note that the TurboPrint 4.1 Light supplied on AS61's Coverdisk is actually a nobbled version that will not produce a complete printout and always prints 'turboprint 4 light' on the page to indicate that it is a demo version. Why call it light, indicating working but short of some features, when it is not a fully operational program?

This is rather deceptive and I am concerned with the way it was presented as a usable program. Quote: "Worth buying the magazine for".

As the cost of Amiga Shopper has risen from £2.50 to £4.25 in the last year, I find myself questioning whether it is worth buying more and more often.

Andrew Dunipace
Glasgow

We cannot run a tutorial on every single programming language every month. The AMOS tutorial was commissioned to run for six issues and did exactly that. It came to an end and we replaced it with another tutorial that had been requested by many readers since we gave away HiSoft BASIC on AS55. We didn't cancel anything.

However, we did say that if people wanted more AMOS, then they should write in and tell, not beg, us. As it happens, rather a lot of you have. So many, in fact, that I'm beginning to suspect that Steve has been ringing around all his friends and getting them to write in! Currently, the tutorials are being reworked as you can see this month, and so it's very possible that you will see the return of a new AMOS column soon. You must remember that while AMOS is still incredibly popular, other readers prefer different languages and we have to cater for them too.

As to TurboPrint, why was it called 'Light'? Well, we didn't name it, but I would guess it was because it allowed you to try out all the features for yourself, before deciding whether you wanted to buy it. The terms 'Light' and 'demo' seem to have become synonymous for software companies. The "Worth buying the magazine for" flash was our attempt at humour. We decided that while other magazines were claiming "Worth £XXX" for a piece of software originally sold at that price, but now available for a fiver, we would be honest.

The disks are worth buying the magazine for. It wasn't supposed to relate to a single program, but to the full 6Mb available for free when you buy the mag. And as to its 'worth', it allowed you to take advantage of an exclusive offer to save £15 off the complete version, which is three times the cost of the entire magazine. Enough people have phoned or written to thank us for the TurboPrint disk that I'm afraid you are in the minority in thinking it was an attempt to hoodwink you. That is not our aim with our disks.

AT contacts

If you want to contact Amiga Technologies, write to the following addresses:

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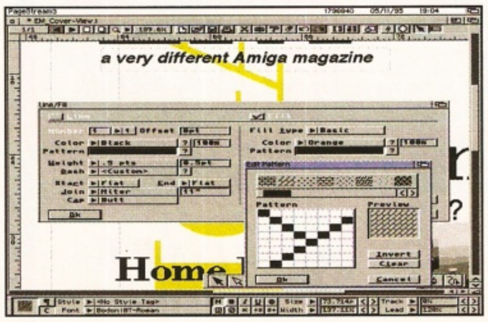
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Amiga Technologies GmbH, Berliner Ring 89, D-64625 Bensheim, Germany.
Fax: 0049 6252 709 520
E-mail: gbo@lisa.amiga-tech.de

Pagestream 3

Does anyone at Shopper know what is happening to Soft Logik's Pagestream 3? After the release about a year ago and some revisions (six, I think) they seem to have gone to ground. How can the Amiga survive the onslaught of PCs when the software houses produce substandard, shoddy products?

Soft Logik made some pretty bold statements when they released Pagestream 3 – do you remember the phrase 'Quark Beater' – but how can they hope to survive? The product should never have been released in its present state, never mind a year ago. What's the point of having a DTP application when it cannot do colour separations and has loads of other wonderful additions that don't work properly.

Unless things improve, I can see Pagestream joining that other DTP program PPage in the Amiga software graveyard.



Pagestream 3 has seen many updates over the last year. Should it have ever been released?

Come on Soft Logik! Give the Amiga a working and fully functioning piece of software before it's too late. After all, it's the only DTP solution for the Amiga.

Paul Younghusband
E-Mail

Well, the news on Pagestream is mixed. The good news is that Soft Logik haven't stopped development and that 3.0i is now available supplying many bug fixes and some new features. For more details, see our news pages this month. On the flip side, it is still far from finished and has many, much needed, features still to be implemented.

But to be fair to Soft Logik, they have embarked on a mammoth project and I think very few companies could afford to continue developing a product for years without recouping some cost to fund further enhancements.

As far as that goes, it seems reasonable to release a product that you intend to continue adding features to, especially if those updates are made freely available as have those for Pagestream 3. Almost every program released still contains bugs and they need ironing out; it just seems that Pagestream has had more than most people are prepared to accept. All we can hope is that 3.0i and 3.1, due later this year, don't have any major bugs left in.

How to contact us



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All the letters received at these addresses will be considered for publication, unless you specifically advise us otherwise.

AS Angels

Every month I read the letters and the pleas for help with open mouthed amazement and, quiet frankly, you must have the patience of angels. Month after month you are asked the same questions by those who claim to be regular readers of the magazine, but obviously never absorb the information contained within. Month after month you publish letters from many who claim to be committed Amigans who delight in running down Amiga Technologies for their lack of commitment and marketing.

Escom purchased Commodore for £10m plus a similar amount again in preparation for purchase, associated necessary deals, setting up production and minimal advertising not to mention distribution and direct product costs. After a long period off the shelves, £20m was a gamble and as an investment, it must be recouped as quickly as possible. With this in mind, AT had to load the price of every Amiga sold. Add a bit for development of new models, a little bit for profit, a wedge for distributors, a piece for retailers, a reasonable royalty for Digita and others and £400 for what is still an excellent computer seems a pretty good deal.

Advertising by the big boys over Christmas was tremendous. How could AT compete? How many other companies have advertised their unique computer over the past 12 months? Yes, Intel inside, Pentium, Multimedia, CD-ROM, Encarta and Windows 95. Walk into any computer dealer or high street box shifter and you can buy an IBM compatible PC (a clone with no R&D costs). Not always the one you have seen advertised because you can bet that every dealer (Escom included) can offer a better deal on a PC.

Christmas advertising did indeed sell a lot of IBM compatibles on the back of those big spend advertisers. AT has a unique product which must be sold as such. They cannot ride on the back of others and they cannot rely on impulse buys or the recommendation of dealers. Dealers (Escom sales people included) make far more money by selling cheap PCs to leads generated by the big boys. The big boys make most of their money from business buyers. AT has a unique product, not a trade-off or a copy knocked together from off-the-shelf parts.

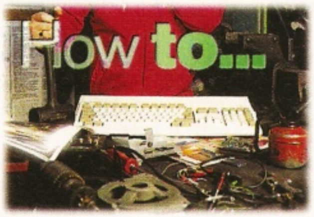
Don't let your readership and other loyal Amigans be fooled or blinkered into thinking that a high spend on advertising will guarantee high sales. Personal recommendation could well be the best way forward. If only 10 per cent of Amiga users in Britain convinced a friend that the Amiga was best all-round computer, that alone would guarantee a bumper and prosperous year for AT.

Tom Porter
Torquay

You quite right in saying that the reason so many PC are shifted (and I think that's an appropriate phrase) is because of the advertising of the 'big boys'. Few ordinary people – those who know little about computers – end up buying the computer they saw advertised. The advert convinces them to buy a PC and the sales person sells them the one they make the most commission on.

Users want to see AT doing something to sell their machine. You might be right that if we all advised friends to buy one, AT would make a fortune, but surely the company needs to push its own product too, not just rely on users to do it for them? Their new advertising campaign and trade-in offer is a step in the right direction.

I think AT have done very well to get the Amiga back out and I am glad to see a new model at last, but the majority of punters aren't interested in all the fiscal problems related to re-releasing the A1200. They simply know that it now costs £150 more than it did when it disappeared a few years ago. The reason the PC shifts is because it can be made cheaply. A cheap Amiga would be shifted just as easily. Quite simply, to succeed again, and this is no secret, a new Amiga needs to be released with as much ground-breaking technology at as low a price as it was when it first appeared. The rumours of the next generation of Amigas suggest that it might just be that. Here's hoping it's true.



Hard error

I read through that quite excellent DIY feature in the April issue, but thought I should correct you slightly. On page 32, where it illustrates the fixing of the 3.5-inch drive, you incorrectly state that it is "the only drive that does not require case modifications".

I have just installed a 3.5-inch drive, bigger than the one you describe (nominally 1.01Gb) and it required no alterations whatsoever. In fact, thanks to Alan Redhouse of Eyetech (☎ 01642 713185, e-mail eyetech@cix.compulink.co.uk) from whom I bought it, fitting it was a dream and I am now a proud possessor of a lovely new and very fast 1Gb drive fitted snugly inside my A1200. Not only that, but it comes prepared, partitioned and with a lot of software pre-installed.

Of course, I had a lot of the pre-installed items already, including MMExperience, but the manual which comes with the kit takes great care to point out which items are Shareware and on which you should register and pay the fee. I firmly believe that you should encourage these lads and lasses to produce more by registering.

I was interested in your letter of the month about the good service David Duncan had from Canon. My wife has a Canon Starwriter and has experienced similarly good service from Canon. Contrast that with the lousy service I got from Citizen when I had a Citizen 200 dot matrix. I had endless trouble getting it sorted at great expense to me on their outrageous 0891 service number – one call cost me over £16 and I got no satisfaction at all. Eventually the nice people at Silica, from whom I bought the useless thing, took it back and supplied me with a new Projet 2c. OK, nominally it is still a Citizen, but really it is an Olivetti in disguise and all the cartridges, and so on come from them, and it emulates the HP Deskjet driver already on board the Amiga, so Olivetti can go and (*Snip – Ed!*) Keep up the good work in your most interesting magazine!

Ian Aisbitt
Bedale

Eyetech tell me that they are actually releasing a new kit for A1200 owners that will require no screws and can be fitted by anyone in minutes. We did run a news piece in the same issue as the DIY feature about the drive and software bundle you bought, but at the time we didn't know that it didn't require any modifications.

There are now at least two drives that can be fitted to the A1200 without hacking it to bits.

I'm glad to hear that you have also had good service from Canon; they do seem to recognise the Amiga market's potential. It's a pity other companies don't also

▶ 72

take note.

Guaranteed?

I was pleased to read in your April edition of Amiga Shopper that the incompatibility problems of some games with the drive in the relaunched A1200 seems to be resolved. I got myself an Amiga in November 1995 and it is my first computer, but what fun and education it is learning to use it.

I have several games that will not load, so I was watching in anticipation for news of the piece of hardware being made available to solve the problem.

I spoke to my dealer who said he would gladly install it, but queried what would happen if the Amiga had problems afterwards. Who would be responsible and if it could be installed easily, why have I not been sent this piece of hardware to install myself, as I am a registered user?

Is there any soldering required or is it simply 'plug and play'?

Philip Howe
Long Eaton

As best as we can discover, the solution involves soldering a new lead in, which is probably why Amiga Technologies have decided that dealers should perform it rather than simply issuing instructions to users. Instructions for a soldering solution have been available on Aminet for a while, but performing it yourself will obviously invalidate your warranty. It would seem reasonable to assume that the reason they have asked dealers to do it is so that it doesn't affect the guarantee.

I've tried to confirm with AT that they would remain responsible and not the dealer, but have so far received no reply, which leaves us stuck. My advice would be that this is something for your dealer and other dealers to sort out with AT themselves.

Grow up

Amiga Shopper is directed at the serious Amiga user, but the target seems to be the serious user who has just bought their first Amiga – those unencumbered by years of investment and experience in the use of particular programs.

The magazine doesn't grow with the user and continue to service their needs. Thus reviews of new programs seldom allow one to judge their relative merits and compatibility with programs sadly no longer published, for example Maxiplan 4 or Prowrite 3.3.

Surely not all of your readers are new to the Amiga and many, if not the majority, would welcome more serious reviews.

Some of us make extensive use of statistical, mathematical and scientific programs, but I can't recall reviews of such programs in Amiga Shopper. Again, it seems that you do not wish to retain readers who progress to such programs for educational or professional reasons.

Ken Ferguson
Australia

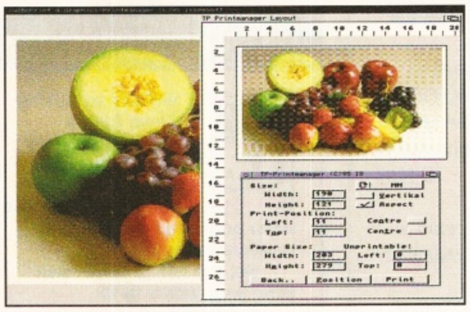
Every time I read this sort of letter, whether it's about us not catering enough for novices or for experts, I am reminded of a certain comedy sketch. The details I forget, but in essence, it is as follows...

A publishing company works in the niche market and finally realises that the way to guarantee 100 per cent market share is to release a title aimed specifically at an individual. Thus Mrs Smith gets Mrs Smith Monthly, containing only the articles and competitions that interest her. It is her ideal magazine. Readership of one.

Amiga Shopper is aimed at a variety of levels. After last year's relaunch, the target audience was expanded from experts to serious users of all levels, for the simple reason that there weren't enough expert readers. We review software in the most accessible way possible and if this should merit the comparison with other programs, we do it.

Otherwise we use the space to tell you about the most important features or flaws of a package. Again, if they are the compatibility, or lack thereof, with other packages, we'll mention it, but what would the point of us wasting valuable space saying that packages are incompatible with each other. Would it really help to spend time listing all the old word processors that can't import data from a new spreadsheet? We will point out when a package has deliberate import features, like WW5 has for TurboCalc files.

As to the maths programs, again we review all the software that we hear about and I can't say I've heard of any new maths programs recently. You must also realise that the audience for such packages is tiny – otherwise there would be more released by software companies.



TurboPrint 4.1 Light. AS's greatest gift or a devilish plan to rip-off readers?

Un-installation

After reading about the EnPrint printer enhancement program, I decided to send away for it. I hadn't realised just how long it would take to print one page of text from a package like Wordworth.

I complained to the supplier and, in fairness, they allowed me to return the package. I deleted the program from the system and ordered the TurboPrint package from yourselves. Whenever I tried to use it, though, the system asked for EnPrint. I had to take the machine to a PD House for help and we ended up formatting the hard drive. I think that there are other users like myself, who are not experts, but use the Amiga to learn and enjoy using your magazine as I do. A problem like this can put you off Amigas for life.

So I would like to thank you for the demo of TurboPrint 4.1 and Deck of NFA for helping me out.

C Mason
Leicester

We received a couple of letters about this sort of thing this month. (And yes, one [well, three, actually] of them was from Graeme Goodes, but we can't print him every month!)

Some programmers have started to include un-install scripts and they are a blessing. At the very least, I think the documentation should include a list of where everything is installed, so that you can manually remove programs, should you need to.

As to it putting you off using the Amiga, you should try un-installing a package from a PC. Blimey! Anyway, I'm glad you found someone to help you get your machine sorted in the end. ■

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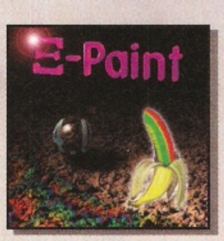


Aminet 11

Aminet CD 11, dated April 1996, consists of approximately 1,1 gigabytes of software in 3700 archives. Since the release of Aminet CD 10 more than 700 MB new software has appeared. The current edition has a special focus on pictures, more than 1000 pictures from the internet were included. User friendly access software makes the Aminet CD 11 a pleasure to use.

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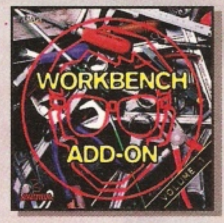


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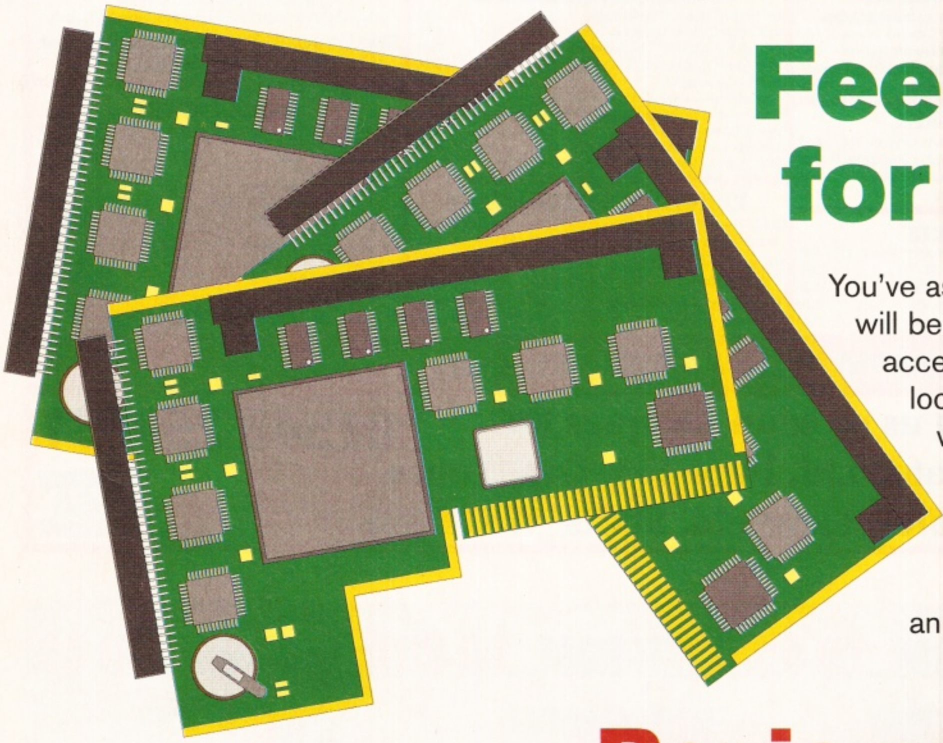
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The **essential** magazine for Amiga enthusiasts

AMIGA SHOPPER

Next **month**



Feel the need for speed?

You've asked us for it, so here it is. Next month, we will be putting together the definitive round-up of accelerators. John Kennedy has already been locked away testing as many accelerators as we can lay our hands on to bring you comprehensive coverage of all the boards around. We'll take every point into account, from pricing to speed, to usefulness in real life situations. Don't buy an accelerator card until you have read this!

Reviews

As well as our testing of accelerators, we'll be reviewing all the latest hardware and software released. At the last check, the list was looking something like this: Surfin' Squirrel – the long awaited update of the popular SCSI interface, MMExperience Pro – the big brother of the excellent multimedia program, Final Data 3 – the new version of Softwood's database and much, much more.

Why not take advantage of our special six-month subscription deal? Telephone the Subscription Hotline on ☎ 01225 822511.

AMOS returns

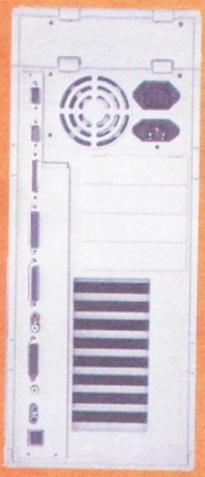
All right, all right. You have submerged our office in letters pleading us to continue AMOS coverage after our AMOS tutorial came to an end. It has obviously been the most popular column we've run for quite a while. So, by popular demand, AMOS will be back next month with a brand new series. Satisfied now?

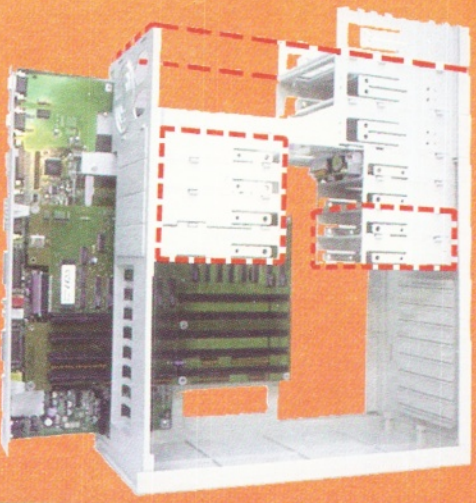
July issue **64.** On sale Tuesday, **28th May** 1996

Ready for future by... infinitiv®



- suitable for all AMIGA™ models
  through mainboard exchanging frame
- drive bays expandable as you like
  only limited by your controllers' capabilities
- modular expandable
  through Top-Case™ system
- easy access from all directions
  through SNAP and CLICK system
- „plug and play" drive mounting-frames





And now for some technical specifications

the left pictures give you an imagination of the internal con-struction of the infinitiv™ tower system. The red marks and lines show some extended drive frames in both the front- and the back area of the tower. Further, you can see an Top Case™, mounted on the towers' top, which explains the expandability of our solution. Each Top-Case™ expands your infinitiv™ tower for an 5,25"/ 3,5" drive bay, ready to use and easy to assemble. Additional drives such as CD-ROMs, harddisks, streamer tapedrives etc. will snap in easiely by using our sophisticated „click and snap" system.

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incl. clock and math co-pro socket with standard PS/2 SIMM modules....£ 42

RAM card with 4 MB RAM,
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PC-keyboard interface for the AMIGA™ 1200,
Installation through solderfree flexcable....£ 42

AMIGA™ 1200 Interface/keyboard extension,
installation through solderfree flexcable, both interfaces are connected through an 5-pole plug....£ 55

3-way ROM-switch for the AMIGA™ 1200,
suitable for ROM V 1.3, 2.0x & 3.0 or 3.1 (pair)....£ 20

AMIGA™ 1200 battery backed up realtime- clock,
(prevents your A1200 from beeing loosing its' mind after restart !)....£ 8

Double IDE-bus harddrive adapter ,
for using 2,5" und 3,5" harddisk drives at the AMIGA™1200, incl. powercable....£ 10

Keyboard case for AMIGA™ 1200,
for the original keyboard, solderfree assembly....£ 29

Keyboard case for AMIGA™ 1200,
incl. Interface, spiral cable and flexcable for external connection of the original internal keyboard....£ 75

AMIGA™ 1200 internal keyboard,
original keyboard for the A1200....£ 20

VGA-adapter for AMIGA™ 1200/4000,
from 23 pole on 15 pole multi sync/VGA....£ 8

POWERSTATION external powersupply,
for the AMIGA™ 1200 (i.e. A500, A600, through standard plug), 23 amperes, featuring on/off-switch and additional con-nectors for 1 x 3,5"and 3 x 5,25" devices ! ....£ 55

A 1200 internal original disk drive,
suitable for the A1200, 880 kb, incl. mounting material....£ 29

External disk drive,
suitable for all AMIGAs™ (maximum 4 drives), featuring on/off switch and connector for aditional drives on the back, 880kb....£ 38

micronik® infinitiv - tower

infinitiv™ A 1200 tower,....£ 169

infinitiv™ PC-tower,....£ 169

infinitiv™ A 1200 Z tower case,
incl. ZORRO -II™ bus board, **PC Keyboard**....£ 295

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featuring 5 ZORRO™-II slots and 3 PC-ISA slots, 170 MB hdd, magic software-package....£ 680

BUS 1200 Z1, AMIGA™ 1200 bus board,
featuring 5 ZORRO™-II slots and 3 PC-ISA slots....£ 169

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featuring 5 ZORRO™-II slots, 3 PC-ISA and an optional video-slot, additional this version contains even an PS/2 - SIMM-socket....£ 199

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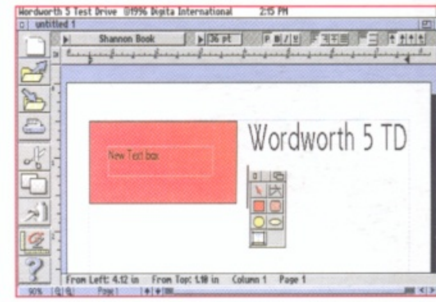
Shopper**disks**

An exclusive and usable test drive version of Digita's Wordworth 5. A time-limited demo of Pro-Soft's Organiser. Virtual memory. System analyser. Much more. Buy me!



Wordworth 5 TD

The Amiga has seen many versions of Wordworth, each better than the last and always raved about by the press. We've managed to get our hands on a special version of the new Wordworth 5, including many of the features and allowing you to load and save your work so that you can really get to see its power. Obviously space only allows a certain amount, but when you see all the features that the full version offers, you can save up to £35 off either the normal or SE version, which is optimised for floppy users.



***Please note:* Wordworth 5TD requires a minimum of 2Mb RAM.**

Pro-Organiser demo



After the enormous success of Pro-Lottery, mainly thanks to response of AS readers, we've got another time-limited demo. This time it's the new Pro-Organiser. As ever, all the functions are available and you can try out every aspect of the program. The demo will run until 31st July 1996. However, you'll be glad to know that a special upgrade price for AS readers has been negotiated.

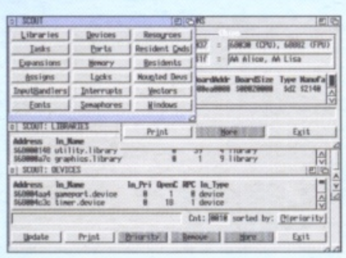
Shopper**Choice**

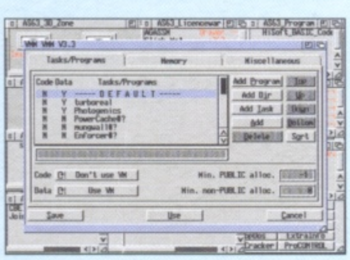
There are utilities and extras for every Amiga user on this month's excellent ShopperChoice Coverdisk.

Utility**Zone**

VMM 3.3

This virtual memory utility has seen a lot of changes and is a very powerful package. It can add extra memory to many programs, but requires an 030 processor and FPU. We loved it so much that we awarded it 95% last month.



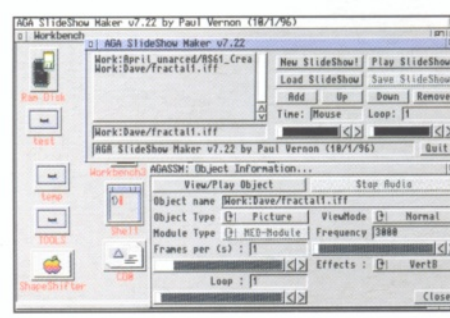


Scout 2.6

Finding out what your system is doing has always been the domain of SnoopDOS. Scout is an excellent companion. It does monitor activity, but has a history, so that it can tell you things like the number of times a library has been accessed.

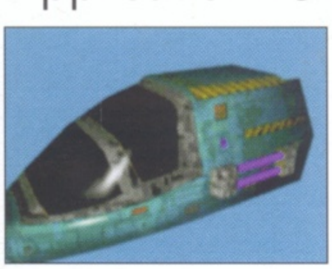
Licenceware**Zone**

Last month we were so impressed with the accessibility of the AGA slideshow maker, AGASSM, that we arranged a demo version for you to try out. As well as being able to show IFFs and animations, you can also play modules. Amazingly, after you've seen how easy it is to use, you can get the full version for only £3!





Application**Zone**



EdwordPro 5.5

The amazing text editor has been updated to offer even more features, including a calculator! Try out all the functions and see for yourself how much better than Ed it is! Your script writing can be transformed.

3D**Zone**

There's a full Imagine object as well as a collection of over 200 Imagine attributes.

Creative**Zone**

The frames for our example animation as well as a Final Writer WWW macro.

Plus: *Technical Zone, InformationZone, ProgrammingZone.*